

EXHIBIT F

**CENTER FOR HEALTH
INFORMATION AND ANALYSIS**

MASSACHUSETTS HOSPITAL PROFILES

DATA THROUGH FISCAL YEAR 2013

JANUARY 2015



center
for health
information
and analysis



TABLE OF CONTENTS

Massachusetts Hospital Profiles- Data through Fiscal Year 2013 Industry Overview	1-4
Massachusetts Hospital Profiles- Data through Fiscal Year 2013 Chartbook	5-20
Introduction to Multi-Acute Hospital System Profiles	Ai
How-to-Read Multi-Acute Hospital System Profiles	Aiii
Multi-Acute Hospital System Profiles	
Comparative Overview	A1
Partners HealthCare System	A2
CareGroup	A3
UMass Memorial Health Care	A4
Steward Health Care System	A5
Baystate Health	A6
Lahey Health System	A7
Cape Cod Healthcare	A8
Berkshire Health Systems	A9
Heywood Healthcare	A10
Introduction to Acute Hospital Cohort Profiles	Bi
How-to-Read Acute Hospital Cohort Profiles	Biii
Changes from FY12 Acute Hospital Cohort Profiles	Bv
Acute Hospital Cohort Profiles	
Academic Medical Centers	B1
Teaching Hospitals	B2
Community Hospitals	B3
Community-DSH Hospitals	B4
Introduction to Acute Hospital Profiles	Ci
How-to-Read Acute Hospital Profiles	Ciii
Changes from FY12 Acute Hospital Profiles	Cvii
Acute Hospitals - by Cohort	
AMC	
Beth Israel Deaconess Medical Center	C1
Boston Medical Center	C2
Brigham and Women's Hospital	C3
Massachusetts General Hospital	C4
Tufts Medical Center	C5
UMass Memorial Medical Center	C6
Teaching	
Baystate Medical Center	C7
Berkshire Medical Center	C8
Brigham and Women's Faulkner Hospital	C9
Cambridge Health Alliance	C10
Lahey Hospital & Medical Center	C11
Mount Auburn Hospital	C12
Saint Vincent Hospital	C13
Steward Carney Hospital	C14
Steward St. Elizabeth's Medical Center	C15



Community

Anna Jaques Hospital	C16
Baystate Mary Lane Hospital	C17
Beth Israel Deaconess Hospital - Milton	C18
Beth Israel Deaconess Hospital - Needham	C19
Beth Israel Deaconess Hospital - Plymouth	C20
Cooley Dickinson Hospital	C21
Emerson Hospital	C22
Hallmark Health	C23
Lowell General Hospital	C24
MetroWest Medical Center	C25
Milford Regional Medical Center	C26
Nantucket Cottage Hospital	C27
Nashoba Valley Medical Center	C28
Newton-Wellesley Hospital	C29
Northeast Hospital	C30
South Shore Hospital	C31
Steward Norwood Hospital	C32
Winchester Hospital	C33

Community-DSH

Athol Hospital	C34
Baystate Franklin Medical Center	C35
Cape Cod Hospital	C36
Clinton Hospital	C37
Fairview Hospital	C38
Falmouth Hospital	C39
Harrington Memorial Hospital	C40
HealthAlliance Hospital	C41
Heywood Hospital	C42
Holyoke Medical Center	C43
Lawrence General Hospital	C44
Marlborough Hospital	C45
Martha's Vineyard Hospital	C46
Mercy Medical Center	C47
Merrimack Valley Hospital	C48
Morton Hospital	C49
Noble Hospital	C50
North Shore Medical Center	C51
Quincy Medical Center	C52
Signature Healthcare Brockton Hospital	C53
Southcoast Hospitals Group	C54
Steward Good Samaritan Medical Center	C55
Steward Holy Family Hospital	C56
Steward Saint Anne's Hospital	C57
Sturdy Memorial Hospital	C58
Wing Memorial Hospital	C59

Specialty

Boston Children's Hospital	C60
Dana-Farber Cancer Institute	C61
Kindred Hospital - Boston	C62
Kindred Hospital - Boston North Shore	C63
Massachusetts Eye and Ear Infirmary	C64
New England Baptist Hospital	C65



Introduction to Non-Acute Hospital Profiles	Di
How-to-Read Non-Acute Hospital Profiles Guide	Diii
Changes from FY12 Non-Acute Hospital Profiles	Dv
Non-Acute Hospitals - by Cohort	
Psychiatric	
Arbour Hospital	D1
Arbour-Fuller Memorial	D2
Arbour-HRI Hospital	D3
Baldpate Hospital	D4
Bournewood Hospital	D5
McLean Hospital	D6
Walden Behavioral Care	D7
Westwood Pembroke Hospital	D8
Whittier Pavilion	D9
Rehabilitation	
Braintree Rehabilitation Hospital	D10
HealthSouth Fairlawn Rehabilitation Hospital	D11
HealthSouth Rehabilitation Hospital of Western Massachusetts	D12
New Bedford Rehabilitation Hospital	D13
New England Rehabilitation Hospital	D14
Spaulding Rehabilitation Hospital	D15
Spaulding Rehabilitation Hospital of Cape Cod	D16
Whittier Rehabilitation Hospital Bradford	D17
Whittier Rehabilitation Hospital Westborough	D18
Chronic Care	
Kindred Hospital Northeast	D19
New England Sinai Hospital	D20
Radius Specialty Hospital	D21
Spaulding Hospital Cambridge	D22
Spaulding North Shore	D23
Vibra Hospital of Western Massachusetts	D24
Specialty	
AdCare Hospital of Worcester	D25
Franciscan Hospital for Children	D26
Hebrew Rehabilitation Hospital	D27
Technical Appendix	E1

**CENTER FOR HEALTH
INFORMATION AND ANALYSIS**

MASSACHUSETTS HOSPITAL PROFILES

INDUSTRY OVERVIEW

DATA THROUGH FISCAL YEAR 2013

JANUARY 2015



center
for health
information
and analysis



ABOUT THIS BRIEF

This brief provides an overview of the Massachusetts hospital industry in fiscal year (FY) 2013 and includes statewide comparative data on Massachusetts hospitals. This brief and accompanying individual hospital profiles, databook, and chartbook update CHIA's March 2014 publication of *Massachusetts Hospital Profiles: Data through Fiscal Year 2012*. In addition to updated financial information for each of the acute and privately-operated non-acute hospitals in the Commonwealth, clinical quality information is included for the first time in the individual acute hospital profiles, as is a section that reports on multi-acute hospital systems.¹

For detailed descriptions of the metrics mentioned in this brief, please see the Technical Appendix.

Overview of the Massachusetts Hospital Industry

In 2013, there were 95 hospitals in Massachusetts: 68 acute facilities and 27 non-acute facilities.² Two-thirds of the hospitals (62 hospitals) in the Commonwealth are affiliated with a multi-hospital system and owned by a parent organization. Sixty-three percent of Massachusetts hospitals (61 hospitals) are non-profit organizations, and there is one municipally-owned acute hospital (Cambridge Health Alliance).

For this publication, CHIA assigned each acute hospital to a cohort of similar hospitals: academic medical centers (AMCs), teaching hospitals, community hospitals, and community-Disproportionate Share Hospitals (DSH).^{3,4} For non-acute hospitals, the cohorts are defined by services provided, and include: psychiatric, rehabilitation, and chronic care. Specialty acute and non-acute hospitals are not identified with a distinct cohort. While CHIA has included profiles for both acute and non-acute hospitals, the remainder of this brief will focus primarily on acute hospitals.

Hospital Utilization

Massachusetts hospitals continue to experience a decline in per capita inpatient discharges. Between FY2009 and FY2013, inpatient discharges dropped 6%, with a decline between FY2012 and FY2013 of 3%, the steepest decline in this five year period. Among the cohorts, community hospitals experienced the largest decline in total discharges, of 7%, between FY2009 and FY2013. In FY2013, AMCs and teaching hospitals, which are also among the largest hospitals in Massachusetts, accounted for 45% of total statewide discharges, consistent with FY2012.

Hospital occupancy rate measures the percent of a hospital's inpatient staffed beds that have been occupied over the course of a year. Between FY2012 and FY2013, the median statewide occupancy rate increased slightly from 65% to 66%. AMCs had the highest median occupancy rate at 84% in FY2013, while community and community-DSH hospitals had the lowest at 64%.

-
- 1 This brief and the profiles do not include data for state-operated non-acute hospitals, as data for these hospitals were not available at the time of publication. Shriners Hospitals for Children were also not included in these analyses.
 - 2 Subsequent to the FY2013 reporting period, North Adams Regional Hospital and Quincy Medical Center closed.
 - 3 A Disproportionate Share Hospital (DSH) is defined in M.G.L. c. 6D, Section 1 as a hospital with a minimum of 63% of patient charges attributed to Medicare, Medicaid, and other government payers, including Commonwealth Care and the Health Safety Net.
 - 4 For definitions of each cohort and hospitals assigned to each cohort, see the Technical Appendix. Note that comparisons of cohort performance between fiscal years reflect FY2013 cohort assignments.



Between FY2009 and FY2013, median growth in acute hospital outpatient visits remained relatively flat, increasing by only 0.6%. Growth rates varied by cohort, however, with AMCs experiencing the highest increase at 4.7%, followed by community hospitals at 3.6%, and teaching hospitals at 2.2%. The community-DSH hospital cohort was the only cohort to experience a decrease in outpatient visits during this period, a 3.1% decline. This decrease, along with the decrease in inpatient volume at community-DSH hospitals between FY2009 and FY2013, indicates that patient volume from these hospitals may be shifting to other hospitals.

Hospital Payer Mix and Relative Prices

Public payers remain the largest source of revenue for Massachusetts hospitals. Statewide, in FY2013, federal and state payers, including Medicare, Medicaid, and Commonwealth Care, comprised 63% of hospital gross revenue, while commercial and other payers accounted for the remaining 37%. Community-DSH hospitals, as the cohort category indicates, are most reliant on public payers, which on average accounted for 68% of their gross revenues. Community hospitals had the lowest average public payer mix among the cohorts at 55%, followed by AMCs at 60%.

AMCs continue to be paid substantially higher prices by commercial payers relative to the teaching and community hospital cohorts even when comparing similar services. Community-DSH hospitals, which have the highest public payer mix among the cohorts, have the lowest average composite relative price percentile, at the 43rd percentile of the cohorts in 2013. In comparison, AMCs were at the 75th percentile.

Hospital Costs & Revenue

Between FY2009 and FY2013, the statewide average inpatient revenue per discharge increased by 8.4%, while the statewide average inpatient cost per discharge increased by 3.3%.⁵

AMCs had the highest average cost and revenue per discharge among the cohorts every year between FY2009 and FY2013.⁶ AMC cost per discharge was approximately 10.7% higher than the statewide average in FY2012 and increased to 14% higher in FY2013. AMC revenue per discharge remained approximately 20% higher than the statewide average in FY2012 and FY2013.

Statewide, hospital outpatient revenue increased in the aggregate by 6.2% between FY2009 and FY2013. All of the hospital cohorts experienced an increase during this period; AMCs had the largest growth at 9.7%, and teaching hospitals had the smallest growth at 4.3%.

Hospital Financial Performance

Hospital financial performance generally improved between FY2012 and FY2013. The median statewide acute hospital total margin, which measures a hospital's overall profitability, increased from 3.4% in FY2012 to 4.1% in FY2013. Teaching hospitals had the highest median total margin in FY2013 at 7.6%, while community hospitals had the lowest at 2.4%. The median statewide acute hospital operating margin, a more focused measure that reflects only the hospital's profit or loss from patient care activities, remained relatively constant between FY2012 and FY2013, at 2.2% and 2.1%, respectively. Again, teaching hospitals had the highest median operating margin in FY2013 at 3.6%, while community hospitals had the lowest at 1.6%.

⁵ Discharges represent case mix-adjusted discharges (CMADs). To enable a more standardized comparison among hospitals, the average cost per CMAD was adjusted to exclude direct medical education costs and physician compensation costs that may be incurred at some hospitals. Statewide figures exclude specialty hospitals.

⁶ Ibid.



Multi-Acute Hospital System Financial Performance

Data from the most recent fiscal year available to CHIA shows that the nine multi-acute hospital systems profiled in this publication generated over \$21 billion in operating revenue, and all but one generated a profit. While acute hospitals accounted for a sizeable portion of revenue within each system, each system contained a variety of other organizations. Some included non-acute hospitals, physician organizations, and health plans, among other types of entities. The specific types of organizations within each system are displayed on the individual system profiles included in this publication.

Quality of Care

The quality measures included in the individual acute hospital profiles are derived from the Commonwealth's Standard Quality Measure Set (SQMS). The selected indicators are hospital-specific measures based on information that hospitals self-report to CHIA and other entities, including the federal Centers for Medicare and Medicaid Services (CMS) and The Leapfrog Group. These measures present hospital performance in four areas: patient safety, patient experience, care practices, and obstetric care.

The Patient Safety Composite (PSI 90) is a summary of 11 Patient Safety Indicators (PSIs) that measure adverse events for various procedures. In 2011, 2012, and 2013, Massachusetts acute hospitals have performed better than (i.e. below) the national average score of 1.0. Statewide, the average complication rate declined between 2011 and 2013 from 0.92 to 0.74.

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey measures patient perspectives on key aspects of their care. Overall, patients' ratings of their experience in Massachusetts acute hospitals were in line with the national average in 2011 and 2012. A notable exception is the measure of hospital noise levels, which was eight and nine points below (i.e. worse than) the national averages in 2011 and 2012, respectively.

The percentage of Medicare Fee-For-Service (ages 65+) admissions to Massachusetts acute hospitals that resulted in an unplanned readmission for any cause within 30 days of discharge ranged from 13% at the highest performing hospital to 19% at the lowest performing hospital in 2012,⁷ while the national average was 16%.⁸ Twenty-three of the 63 Massachusetts hospitals included in this analysis had rates that were better than (i.e. at or below) the national average in 2012.

Early elective deliveries are non-medically necessary cesarean or induced deliveries prior to 39 weeks gestation. Over a three-year period, the range of early elective deliveries between Massachusetts' highest and lowest performing acute hospitals decreased substantially, from 38 percentage points in 2011-2012 to five percentage points in 2012-2013. The number of acute hospitals in Massachusetts with no early elective deliveries increased from 6 to 20, and the Massachusetts median of 0.9% was better than the national median of 2.5% in 2012-2013. Hospitals in many states have improved performance on this measure, but The Leapfrog Group has identified Massachusetts as a standout performer.⁹

⁷ This refers to the Medicare reporting period, July 2011-June 2012.

⁸ CMS Hospital Compare, July 2011-June 2012. Rates are risk-adjusted and include only unplanned readmissions.

⁹ The Leapfrog Group. Dramatic Decline in Dangerous Early Elective Deliveries. Available from: http://www.leapfroggroup.org/policy_leadership/leapfrog_news/5164214 (Accessed January 9, 2015).



CENTER FOR HEALTH
INFORMATION AND ANALYSIS

MASSACHUSETTS HOSPITAL PROFILES

CHARTBOOK

DATA THROUGH FISCAL YEAR 2013

JANUARY 2015



center
for health
information
and analysis

Number of Massachusetts Hospitals by System Affiliation and Profit Status

- 66% of hospitals are in multi-hospital systems.
- 36% of hospitals are for-profit hospitals.

Category	Acute Non-Profit or Public	Acute For-Profit	Non-Acute Non-Profit	Non-Acute For-Profit	TOTAL
Multi-Hospital System	31	14	5	12	63
Individual Hospitals	23	0	2	8	32
TOTAL	54	14	7	20	95

Top Discharges Statewide (by Diagnostic Group)

Maternity and delivery cases were the most common reasons for inpatient admissions in FY2013.

Rank	DRG	Description	Discharges*	% Total Discharges
1	540, 560 and 640	Delivery DRG	132,468	16%
2	720	Septicemia & Disseminated Infections	22,074	3%
3	194	Heart Failure	21,207	3%
4	139	Other Pneumonia	20,688	3%
5	140	Chronic Obstructive Pulmonary Disease	18,222	2%
6	302	Knee Joint Replacement	15,768	2%
7	383	Cellulitis & Other Bacterial Skin Infections	14,246	2%
8	201	Cardiac Arrhythmia & Conduction Disorders	14,104	2%
9	753	Bipolar Disorders	12,881	2%
10	463	Kidney & Urinary Tract Infections	12,519	2%
All other cases			521,367	65%
TOTAL DISCHARGES			805,544	100%

Data Source: Hospital Discharge Database (HDD)

Note: Total discharges reported by hospitals in the HDD may vary from total discharges reported by hospitals in the Hospital 403 Cost Reports. See Technical Appendix for more information.

* Discharge data does not include the acute care Kindred Hospitals as HDD data was not available for these hospitals. Shriners Hospitals for Children were also not included.

Median Occupancy Rates by Cohort

Median occupancy rates increased for all cohorts from FY2012 to FY2013.

Cohort	FY2012 Occupancy Rate	FY2013 Occupancy Rate
Academic Medical Center	83%	84%
Teaching	68%	71%
Community	63%	64%
Community-DSH	63%	64%
Specialty*	67%	69%

Data Source: Hospital 403 Cost Reports

* Shriners Hospitals for Children were not included in this analysis.

Discharges by Cohort

- Total hospital discharges declined nearly 6% from FY2009 to FY2013.
- Discharges declined in every cohort from FY2009 to FY2013.

Cohort	Number of Hospitals	FY2009 Discharges	FY2012 Discharges	FY2013 Discharges	Percent of Statewide Discharges	% Change FY2009 to FY2013	% Change FY2012 to FY2013
Academic Medical Centers	6	240,813	231,506	224,757	28%	-6.7%	-2.9%
Teaching	9	149,383	146,702	144,473	18%	-3.3%	-1.5%
Community	18	206,289	200,629	191,842	24%	-7.0%	-4.4%
Community-DSH	27	237,159	232,932	225,433	28%	-4.9%	-3.2%
Specialty*	6	28,579	26,888	26,405	3%	-7.6%	-1.8%
TOTAL STATEWIDE	66**	862,223	838,657	812,910	100%	-5.7%	-3.1%

Data Source: Hospital 403 Cost Reports

Note: Total discharges reported by hospitals in the Hospital 403 Cost Reports may vary from total discharges reported by hospitals in the Hospital Discharge Database (HDD). See Technical Appendix for more information.

* Shriners Hospitals for Children were not included in this analysis.

** In FY2013, there were 66 hospitals included. In FY2009, there were 67 hospitals (Saints Medical Center was a separate hospital in FY2009, but merged with Lowell General Hospital in FY2012).

Change in Outpatient Visits, by Cohort

Outpatient visits increased in all cohorts except Community-DSH from FY2009 to FY2013.

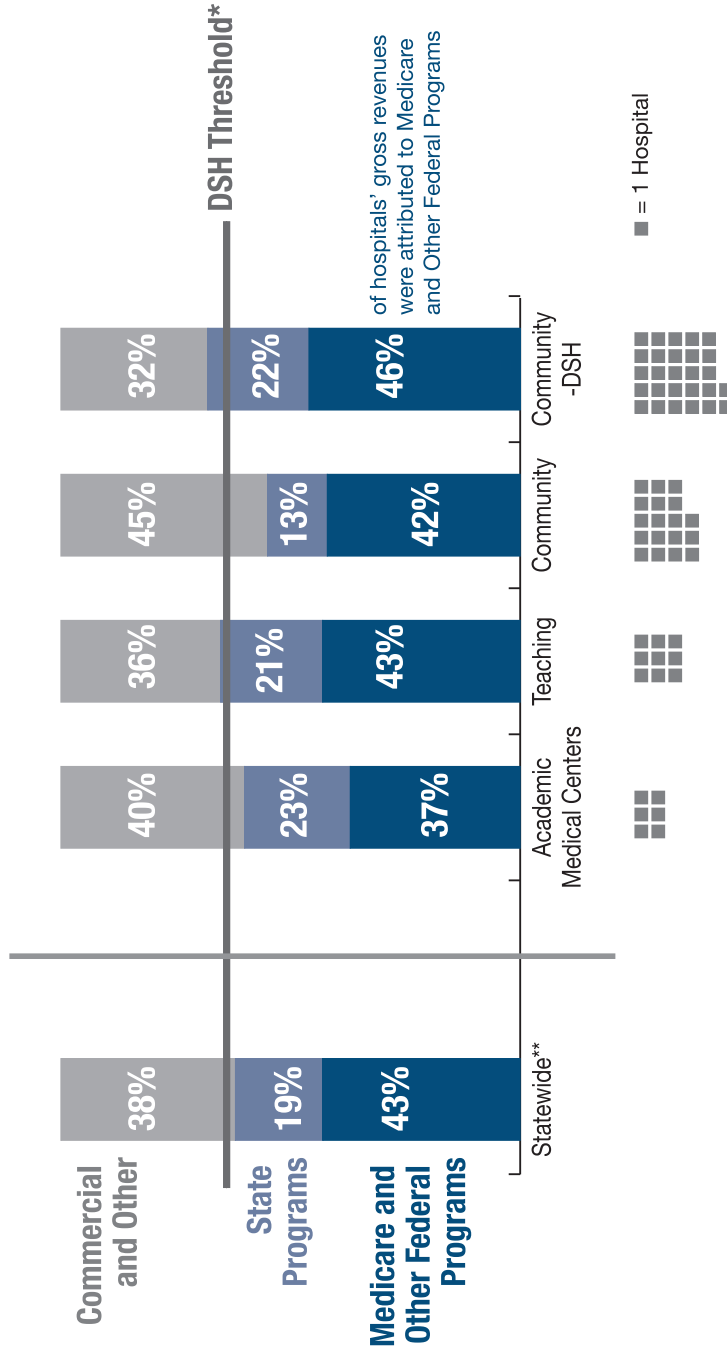
Cohort	Median Change in Outpatient Visits – Cumulative From FY2009			
	FY2009-FY2010	FY2009-FY2011	FY2009-FY2012	FY2009-FY2013
Academic Medical Center	1.4%	3.2%	6.2%	4.7%
Teaching	-3.4%	-2.1%	2.5%	2.2%
Community	0.8%	0.6%	-2.7%	4.0%
Community-DSH	-1.2%	-1.3%	-0.7%	-3.1%
Specialty*	1.9%	3.1%	9.6%	10.1%
TOTAL STATEWIDE	0.6%	-0.5%	2.5%	-0.1%

Data Source: Hospital 403 Cost Reports

* Shriners Hospitals for Children were not included in this analysis.

FY2013 Payer Mix

Community-DSH and teaching hospitals have the highest share of public payer mix.



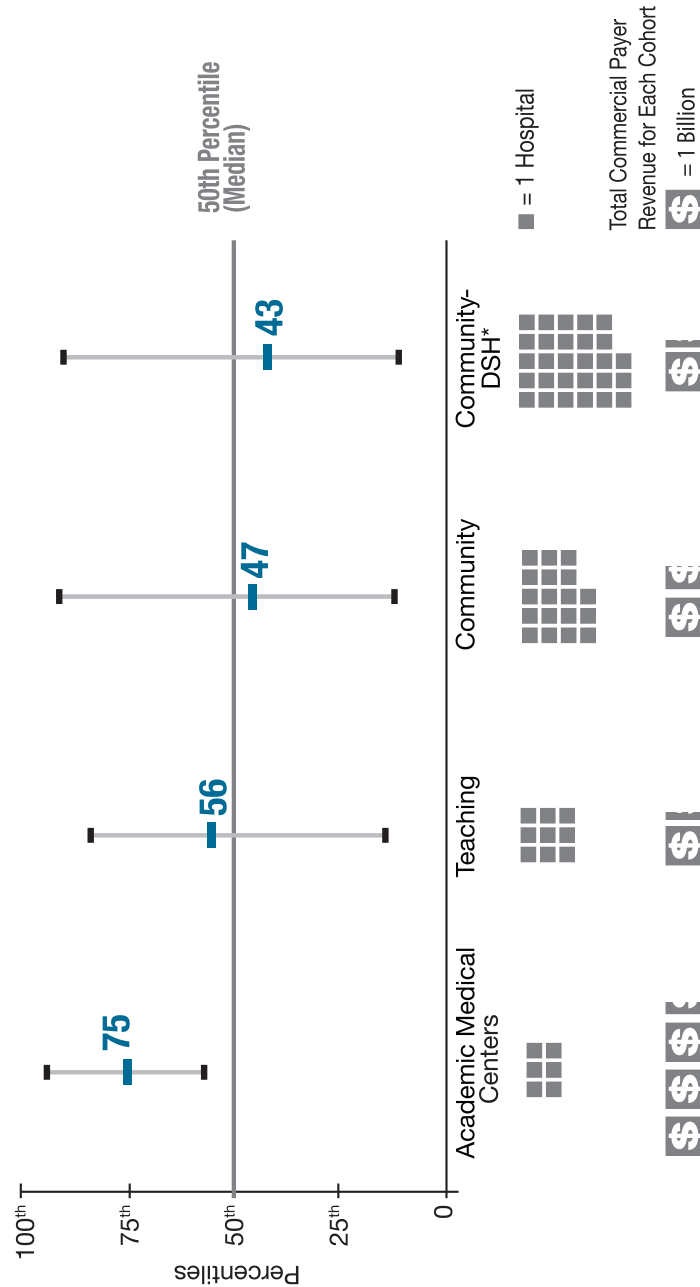
Data Source: Hospital 403 Cost Reports

* Hospitals have DSH status if they have 63% or more of gross revenues (GSR) attributable to Medicare, Medicaid, and other government payers, including Commonwealth Care and the Health Safety Net.

** Statewide excludes Specialty hospitals.

Acute Hospital Blended Composite Relative Price Percentile, by Hospital Cohort, CY2013

Academic medical centers, on average, had prices well above the median in CY2013.



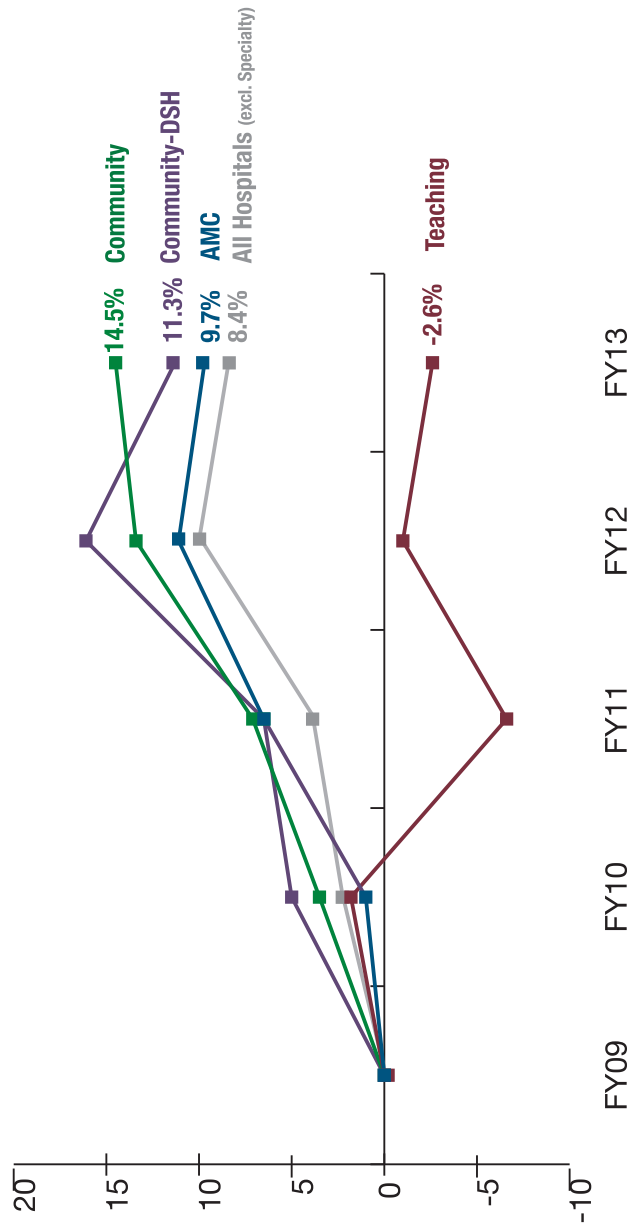
Data Source: Payer data reported in accordance with 957 CMR 2.00

Note: Commercial payer relative price levels represent the range and average of the cohort hospitals' blended composite relative price levels, expressed as percentiles, for all Massachusetts payers in Calendar Year 2013.

* The Community-DSH cohort includes Saints Medical Center, which merged with Lowell General Hospital in 2012; some commercial payers continued to report price data for Saints Medical Center separately in 2013.

Growth in Inpatient Revenue per CMAD, FY2009 - FY2013

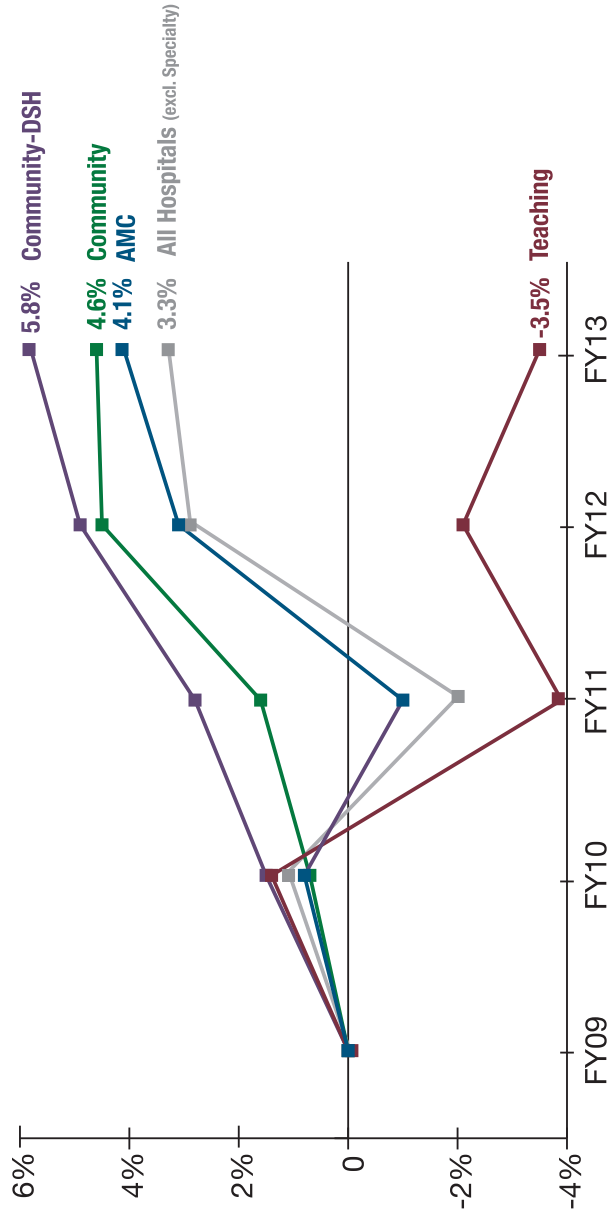
Community hospitals had the highest growth in inpatient revenue per case mix-adjusted discharge (CMAD) from FY2009 to FY2013 of 14.5%, while teaching hospitals experienced a decline of nearly 3%.



Data Source: Hospital 403 Cost Reports

Growth in Inpatient Adjusted Cost per CMAD, FY2009 - FY2013

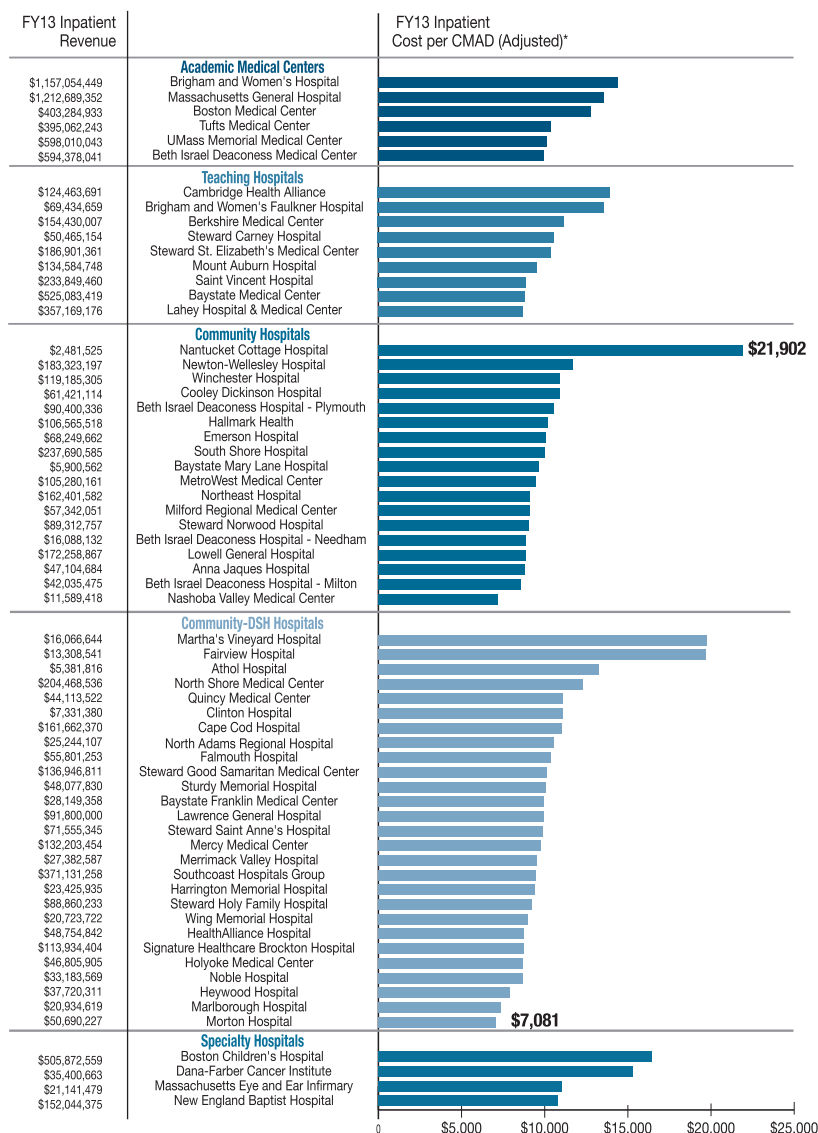
Community-DSH hospitals had the highest growth in inpatient adjusted cost per case mix-adjusted discharge (CMAD) from FY2009 to FY2013 of 5.8%, while teaching hospitals experienced a decline of 3.5%.



Data Source: Cost and discharge data were sourced from the Hospital 403 Cost Reports. Case mix data was sourced from the Hospital Discharge Database.

FY2013 Adjusted Cost per CMAD

- Among non-specialty cohorts, academic medical centers had the highest average adjusted* cost per case mix-adjusted discharge (CMAD), 13% higher than the statewide average.
- Many rural hospitals had higher adjusted costs per CMAD, primarily due to their low patient volume and remote locations.



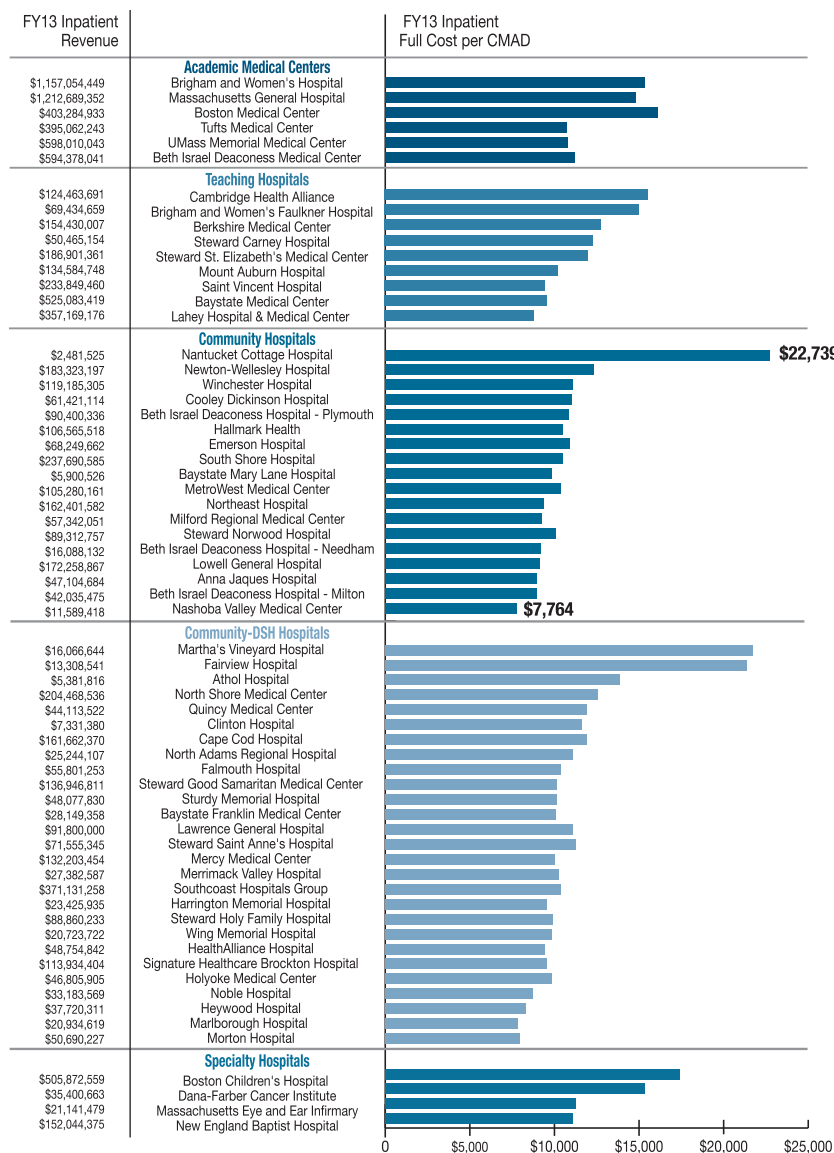
Data Source: Cost and discharge data were sourced from the Hospital 403 Cost Reports. Case mix data was sourced from the Hospital Discharge Database.

Note: The acute care Kindred Hospitals were not included in this analysis, as case mix data was not available for these hospitals. Shriners Hospitals for Children were also not included.

* Costs were adjusted to exclude direct medical education costs and physician compensation costs. Inpatient costs can vary among hospitals depending on a number of factors, including these cost categories. Adjusting for these cost categories facilitates better comparison between hospitals that have these costs and those that do not. Excluding these costs, however, does not reveal the true cost for inpatient care, which may be higher for hospitals with medical education costs and physician compensation costs. For more information on these cost categories, see Databook.

FY2013 Full Cost per CMAD

- Full inpatient costs per case mix-adjusted discharge (CMAD) vary widely among hospitals, even within cohorts. Among teaching hospitals, for example, there was a 76% difference between the highest and the lowest cost per CMAD in FY2013.
- Academic medical centers and teaching hospitals have higher than average full costs per CMAD, in part due to the costs of their medical residency programs.

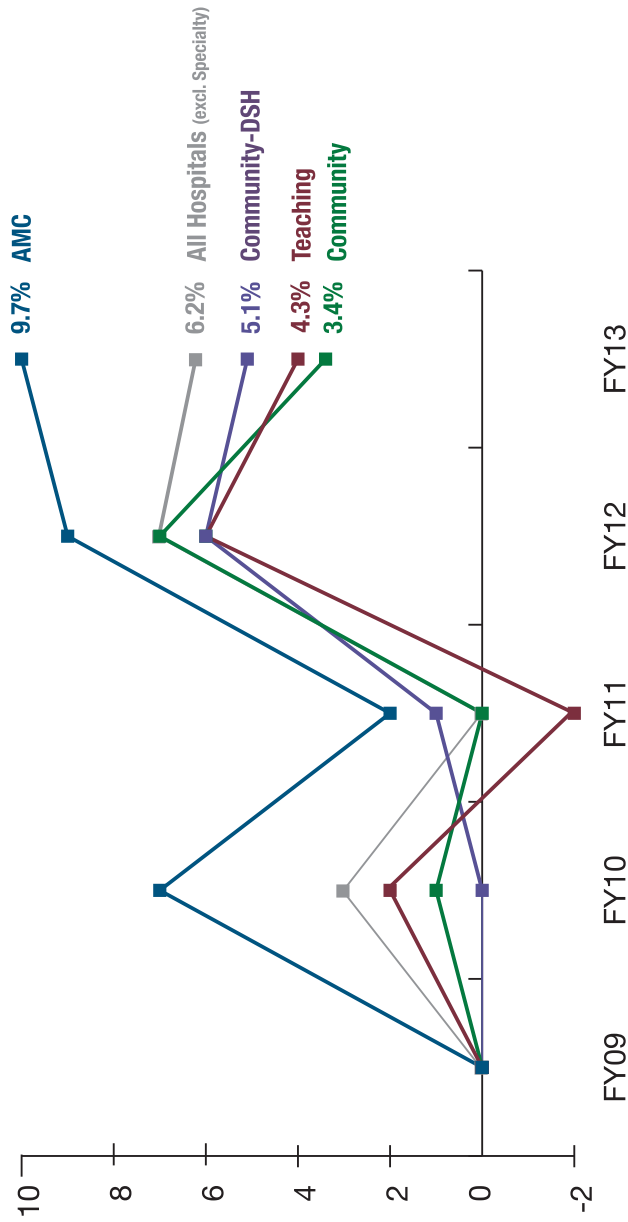


Data Source: Cost and discharge data were sourced from the Hospital 403 Cost Reports. Case mix data was sourced from the Hospital Discharge Database.

Note: The acute care Kindred Hospitals were not included in this analysis, as case mix data was not available for these hospitals. Shriners Hospitals for Children were also not included.

Growth in Outpatient Revenue, FY2009 - FY2013

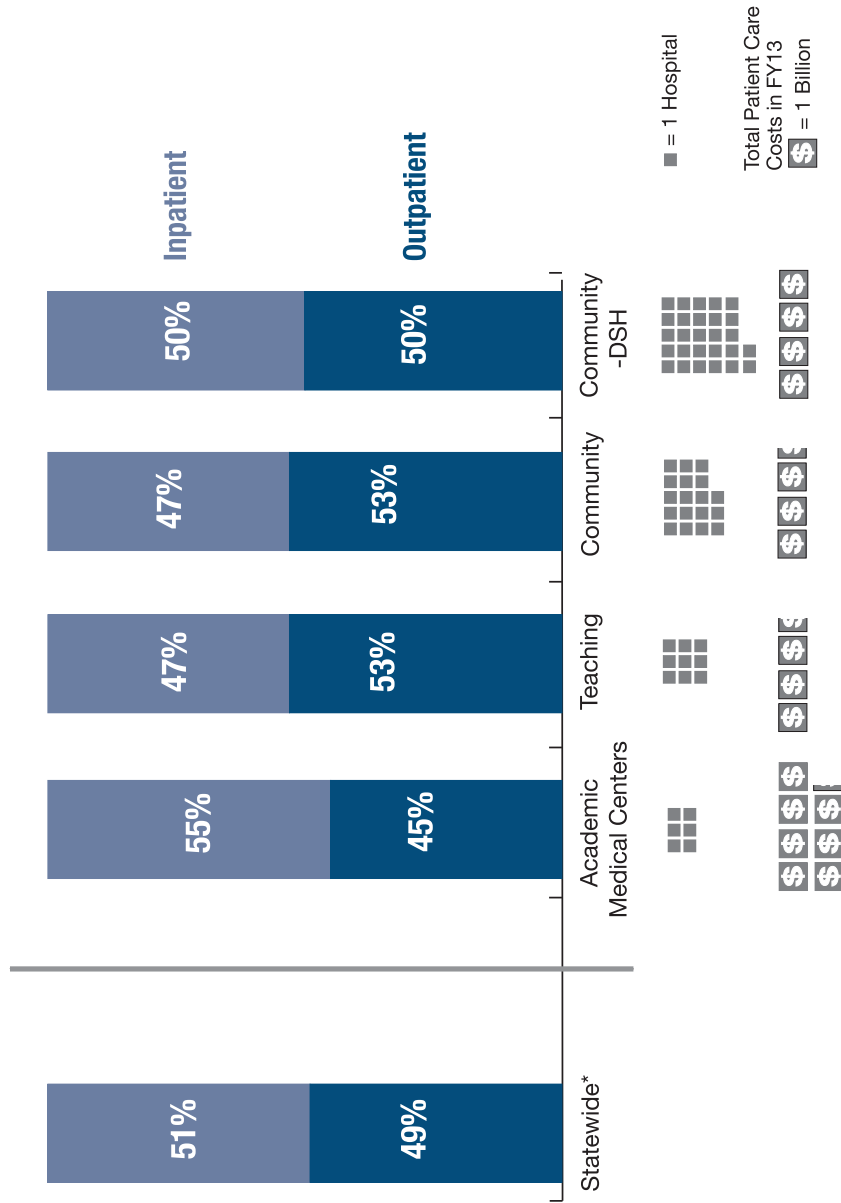
AMCs had the highest growth in outpatient revenue from FY2009 to FY2013.



Data Source: Hospital 403 Cost Reports

Proportion of Inpatient and Outpatient Costs by Cohort, FY2013

In FY2013, academic medical centers had a greater share of their total costs attributable to inpatient care.

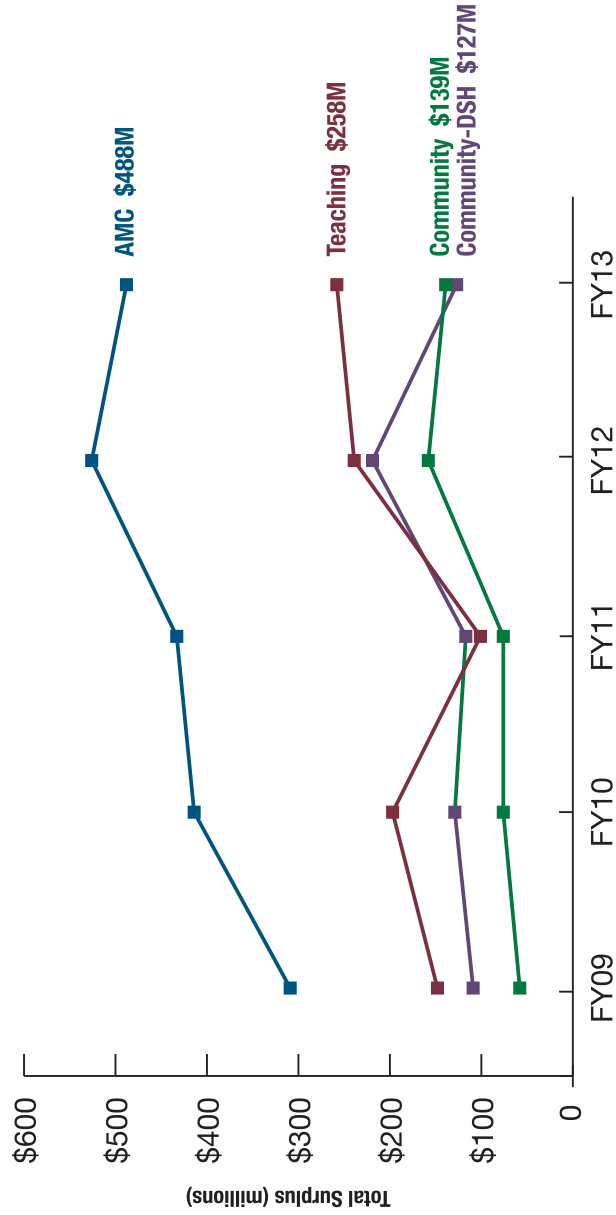


Data Source: Hospital 403 Cost Reports

* Statewide excludes Specialty Hospitals

Surplus by Cohort

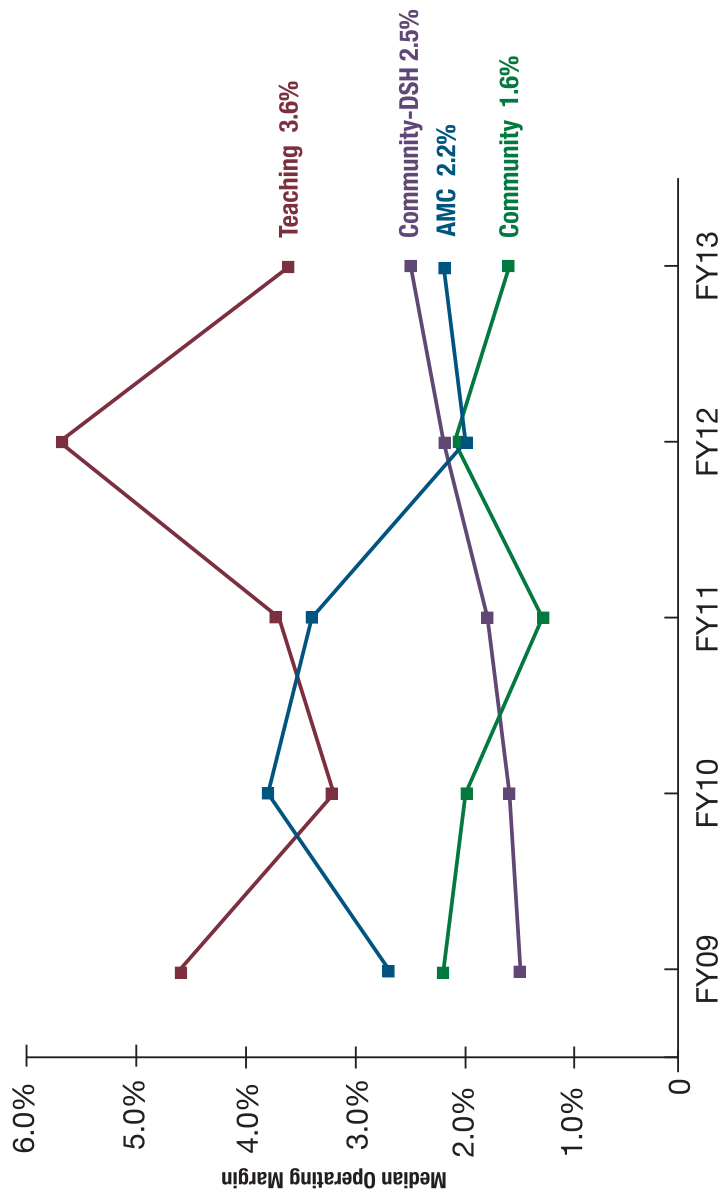
AMCs collectively had the largest surplus in absolute dollars every year from FY2009 to FY2013.



Data Source: Hospital Standardized Financial Statements

Growth in Median Operating Margin, FY2009-FY2013

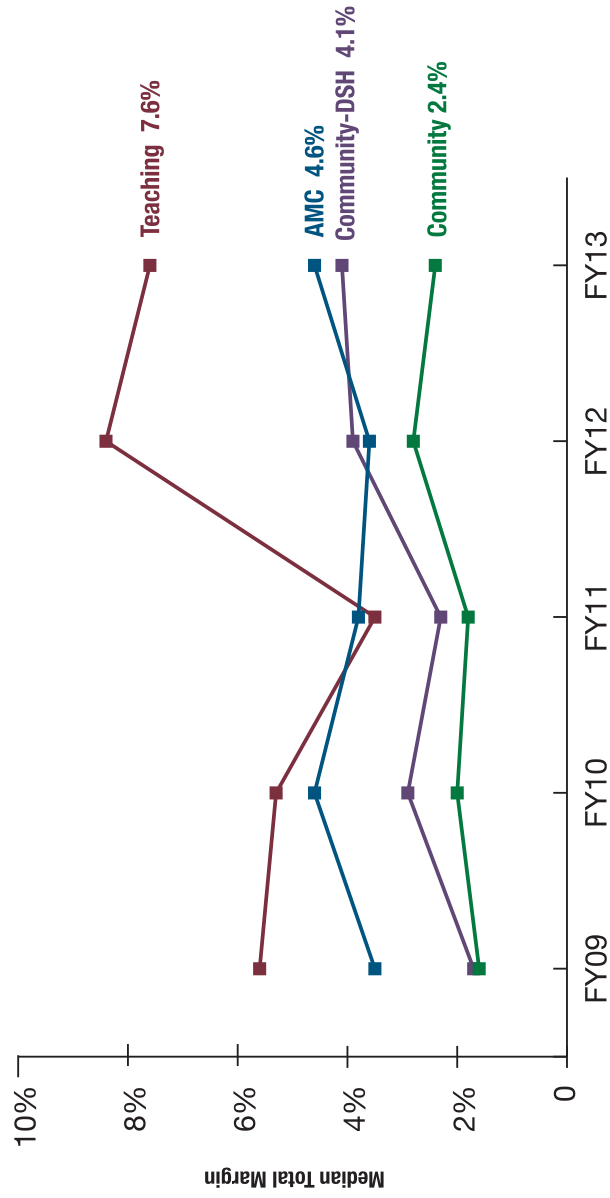
All cohorts have had positive median operating margins since FY2009. Teaching hospitals tended to have the highest median operating margin over this period, including a 3.6% margin in FY2013.



Data Source: Hospital Standardized Financial Statements

Growth in Median Total Margin

Teaching hospitals had the highest total margin in FY2013, at 7.6%.



Data Source: Hospital Standardized Financial Statements



INTRODUCTION TO MULTI-ACUTE HOSPITAL SYSTEM PROFILES

This section provides an overview of multi-acute hospital systems in Massachusetts (“system profiles”). Multi-acute hospital systems play a central role in the Massachusetts health care environment, accounting for the majority of acute hospitals statewide. In 2013, there were nine¹ multi-acute hospital systems that encompassed 39 of the state’s 68 acute hospitals.²

The information presented in the system profiles is based primarily on financial data. Each profile includes measures that highlight financial performance, organizational structure, and relative size of each component entity within the system.

See below for an index of the systems as well as their acute and non-acute hospitals.

Partners HealthCare Systempage A2

Massachusetts General Hospital.....	C4
Brigham and Women’s Hospital.....	C3
North Shore Medical Center.....	C51
Newton-Wellesley Hospital.....	C29
Brigham and Women’s Faulkner Hospital.....	C9
Martha’s Vineyard Hospital.....	C46
Cooley Dickinson Hospital	C21
Nantucket Cottage Hospital.....	C27

McLean Hospital.....	D6
Spaulding Rehabilitation Hospital.....	D15
Spaulding Hospital Cambridge.....	D22
Spaulding North Shore.....	D23
Spaulding Rehabilitation Hospital of Cape Cod	D16

CareGroup.....page A3

Beth Israel Deaconess Medical Center.....	C1
Mount Auburn Hospital.....	C12
New England Baptist Hospital.....	C65
Beth Israel Deaconess - Milton.....	C18
Beth Israel Deaconess - Needham.....	C19

UMass Memorial Health Carepage A4

UMass Memorial Medical Center.....	C6
HealthAlliance Hospital	C41
Wing Memorial Hospital.....	C59
Marlborough Hospital.....	C45
Clinton Hospital	C37

Steward Health Care Systempage A5

Steward St. Elizabeth’s Medical Center	C15
Steward Good Samaritan Medical Center	C55
Steward St. Anne’s Hospital.....	C57
Steward Holy Family Hospital.....	C56
Steward Norwood Hospital	C32
Morton Hospital	C49
Steward Carney Hospital	C14
Quincy Medical Center.....	C52
Merrimack Valley Hospital	C48
Nashoba Valley Medical Center.....	C28

New England Sinai Hospital	D20
----------------------------------	-----

1 Kindred Healthcare, Inc. and Tenet Healthcare Corporation are publicly traded, multistate health systems. Each owns two acute hospitals in Massachusetts (Kindred owns Kindred Hospital – Boston and Kindred Hospital – Boston North Shore; Tenet owns MetroWest Medical Center and Saint Vincent Hospital). Due to their broad presence outside of Massachusetts, CHIA did not include Kindred or Tenet in the system profiles chapter.

2 Refer to the “Subsequent Events” section (Exhibit A) of the Technical Appendix for additional information on the number of hospitals in Massachusetts, as there have been several changes during 2014.



Baystate Healthpage A6

Baystate Medical CenterC8
Baystate Franklin Medical CenterC35
Baystate Mary Lane HospitalC17

Lahey Health System.....page A7

Lahey Hospital & m m Medical Center.....C11
Northeast HospitalC30

Cape Cod Healthcarepage A8

Cape Cod HospitalC36
Falmouth Hospital.....C39

Berkshire Health Systems.....page A9

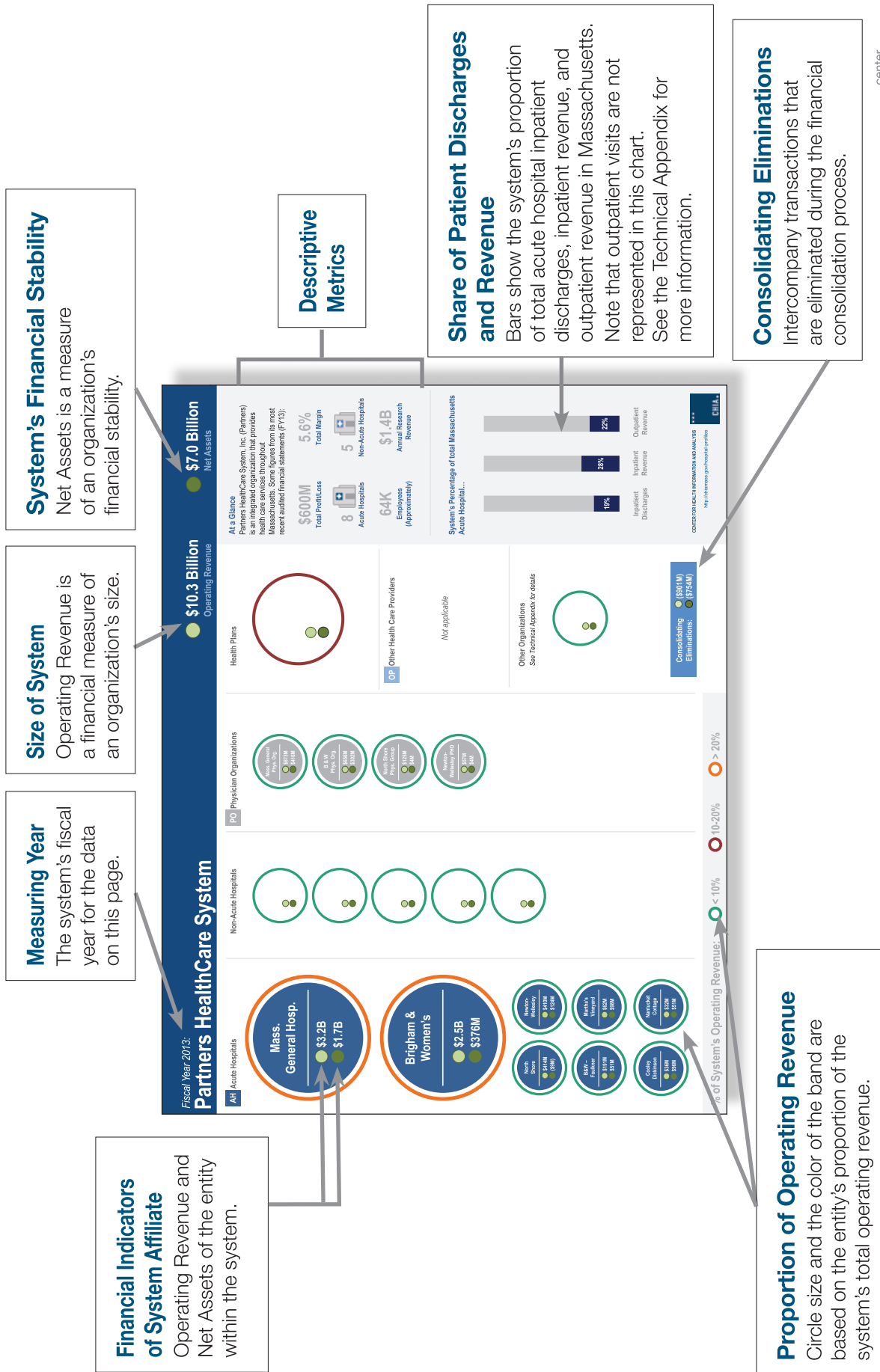
Berkshire Medical CenterC8
Fairview Hospital.....C38

Heywood Healthcarepage A10

Heywood HospitaC42
Athol HospitalC34

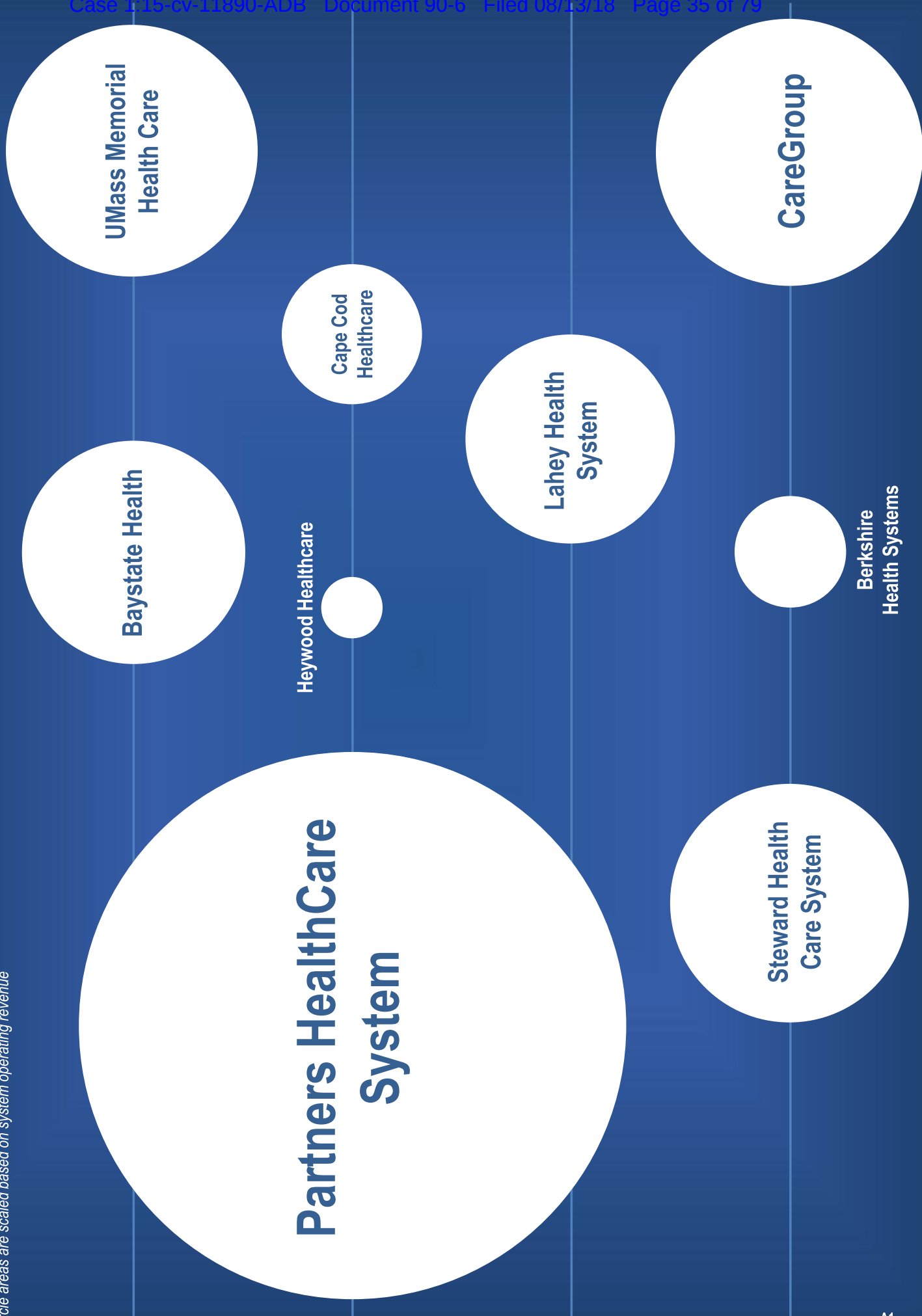
How to Read Multi-Acute Hospital System Profiles

This sheet provides a brief introduction to the metrics on the multi-acute hospital system profiles. Definitions and notes on all metrics are available in the Technical Appendix.



Multi-Acute Hospital System Profiles: Comparative Overview

Circle areas are scaled based on system operating revenue



Fiscal Year 2013:

Partners HealthCare System

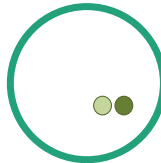
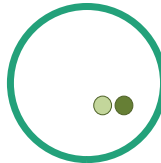
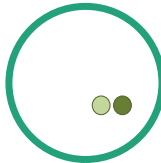
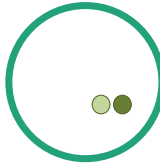
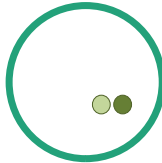
\$10.3 Billion
Operating Revenue

\$7.0 Billion
Net Assets

AH Acute Hospitals



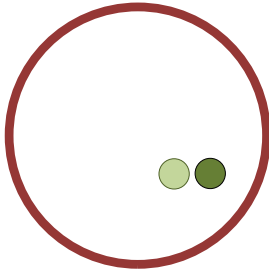
Non-Acute Hospitals



PO Physician Organizations



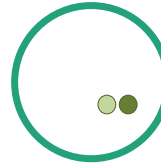
Health Plans



OP Other Health Care Providers

Not applicable

Other Organizations
See Technical Appendix for details



Consolidating Eliminations: (\$901M) (\$754M)

At a Glance

Partners HealthCare System, Inc. (Partners) is an integrated organization that provides health care services throughout Massachusetts. Some figures from its most recent audited financial statements (FY13):

\$600M
Total Profit/Loss

5.6%
Total Margin

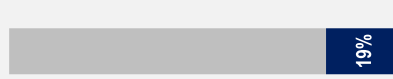
8
Acute Hospitals

5
Non-Acute Hospitals

64K
Employees (Approximately)

\$1.4B
Annual Research Revenue

System's Percentage of total Massachusetts Acute Hospital...

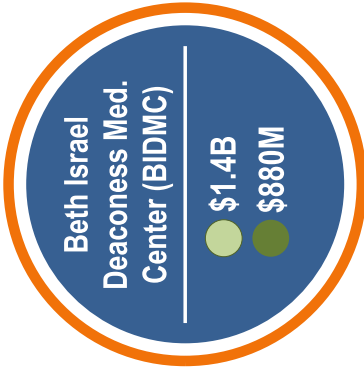


Inpatient Discharges

Inpatient Revenue

Outpatient Revenue

AH Acute Hospitals



Non-Acute Hospitals

Not applicable

PO Physician Organizations



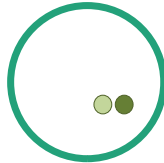
Health Plans

Not applicable

OP Other Health Care Providers

Not applicable

Other Organizations
See Technical Appendix for details



Consolidating
Eliminations: (\$168M)
(\$2M)

At a Glance

CareGroup, Inc. is a non-profit entity that oversees several regional teaching and community hospitals and physician groups. Some figures from its most recent audited financial statements (FY13):

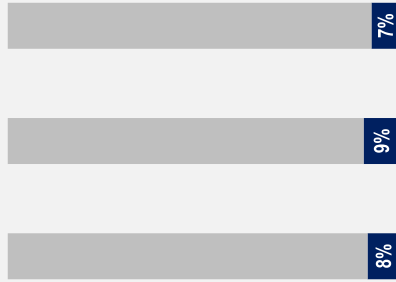
\$137M
Total Profit/Loss

5.4%
Total Margin

5
Acute Hospitals

12K
Employees
(Approximately)

System's Percentage of total Massachusetts Acute Hospital...



Inpatient Discharges
Inpatient Revenue
Outpatient Revenue

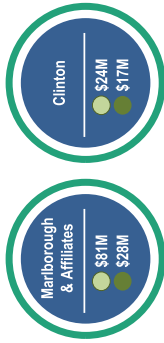
Fiscal Year 2013:

UMass Memorial Health Care

\$2.2 Billion
Operating Revenue

\$860 Million
Net Assets

AH Acute Hospitals



Non-Acute Hospitals

Fairlawn Rehabilitation Hospital*

PO Physician Organizations



Health Plans

Not applicable

At a Glance

UMass Memorial Health Care, Inc. is an integrated organization that provides health care services throughout Massachusetts. Some figures from its most recent audited financial statements (FY13):

\$75M

Total Profit/Loss

3.4%

Total Margin



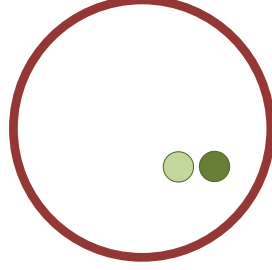
12K

Employees (Approximately)

OP Other Health Care Providers



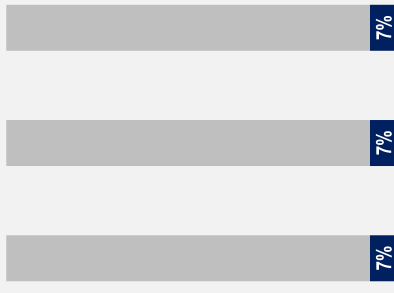
Other Organizations
See Technical Appendix for details



Consolidating Eliminations:



System's Percentage of total Massachusetts Acute Hospital...



*Fairlawn Rehabilitation Hospital was 50% owned by UMass and 50% owned by HealthSouth Corporation in FY13.

% of System's Operating Revenue:



< 10%



10-20%



> 20%

Fiscal Year 2012*:

Steward Health Care System

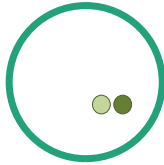
\$2.0 Billion
Operating Revenue

\$21 Million
Net Assets

AH Acute Hospitals



Non-Acute Hospitals



PO Physician Organizations

Steward Medical Group*
Steward Emergency Physicians*
Steward Physician Contracting*

Health Plans

See Technical Appendix for details

At a Glance

Steward Health Care System, LLC is an integrated organization that provides health care services throughout Massachusetts. Some figures from its most recent audited financial statements (FY12):

-\$33M
Total Profit/Loss

-1.7%
Total Margin

10
Acute Hospitals

1
Chronic Care Hospital

17K
Employees (Approximately)

OP Other Health Care Providers

Steward Home Care*
Steward PET Imaging*

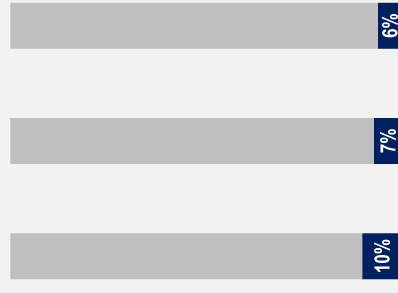
Other Organizations
See Technical Appendix for details

Steward Health Care Network*
Tailored Risk Assurance Company*

Consolidating
Eliminations:

Unknown*
Unknown*

System's Percentage of total Massachusetts Acute Hospital...



Inpatient Discharges
Inpatient Revenue
Outpatient Revenue

*Steward's FY12 consolidated financial statements, the most recent on record with CHIA, only provide a financial breakout for the system's hospital organizations. The other organizations presented on this profile are mentioned in the financial statements, but CHIA does not have their financial information.

AH Acute Hospitals



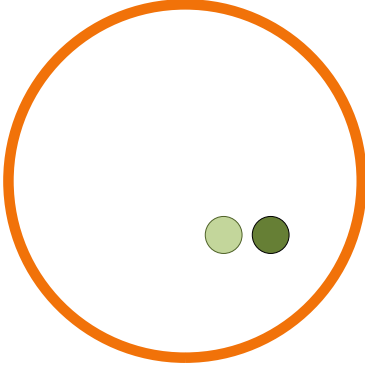
Non-Acute Hospitals

Not applicable

PO Physician Organizations



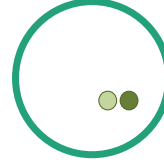
Health Plans



OP Other Health Care Providers



Other Organizations
See Technical Appendix for details



Consolidating Eliminations: (\$310M) (\$76M)

At a Glance

Baystate Health, Inc. (Baystate) is an organization that provides health care services throughout Western Massachusetts. Some figures from its most recent audited financial statements (FY13):

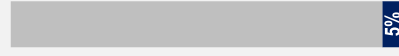
\$71M
Total Profit/Loss

4.1%
Total Margin

3
Acute Hospitals

10K
Employees (Approximately)

System's Percentage of total Massachusetts Acute Hospital...



Inpatient Discharges
Inpatient Revenue
Outpatient Revenue

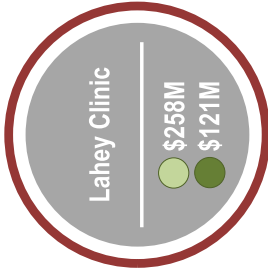
AH Acute Hospitals



Non-Acute Hospitals

Not applicable

PO Physician Organizations



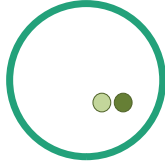
Health Plans

Not applicable

OP Other Health Care Providers



Other Organizations
See Technical Appendix for details



Consolidating (\$49M)
Eliminations: (\$16M)

At a Glance

Lahey Health System, Inc. is an integrated health care system acting as the parent organization of Lahey Clinic Foundation, Inc., Lahey Affiliates; Northeast Health System, Inc.; and Northeast Affiliates. Some figures from its most recent audited financial statements (FY13):

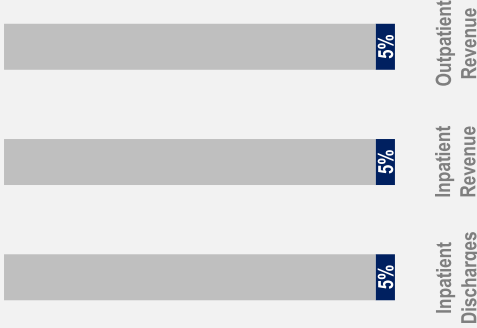
\$83M
Total Profit/Loss

5.4%
Total Margin

2
Acute Hospitals

11K
Employees
(Approximately)

System's Percentage of total Massachusetts Acute Hospital...

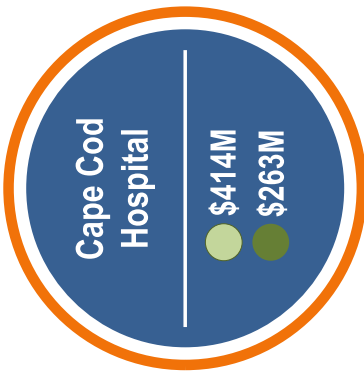


Cape Cod Healthcare

\$674 Million
Operating Revenue

\$489 Million
Net Assets

AH Acute Hospitals



Non-Acute Hospitals

Not applicable

PO Physician Organizations



Health Plans

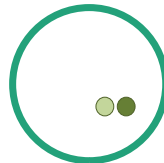
Not applicable

OP Other Health Care Providers



Other Organizations

See Technical Appendix for details



At a Glance

Cape Cod Healthcare, Inc. provides health care services in Cape Cod, Massachusetts. Some figures from its most recent audited financial statements (FY13):

\$37M

Total Profit/Loss

5.5%

Total Margin

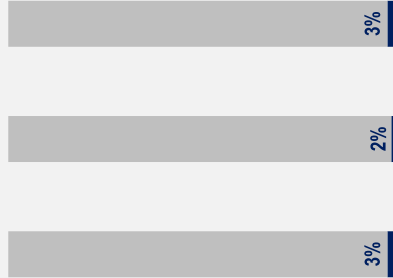
2

Acute Hospitals

5K

Employees
(Approximately)

System's Percentage of total Massachusetts Acute Hospital...



Inpatient Discharges
Inpatient Revenue
Outpatient Revenue

Berkshire Health Systems

\$429 Million
Operating Revenue

\$302 Million
Net Assets

AH Acute Hospitals



Non-Acute Hospitals

Not applicable

PO Physician Organizations



Health Plans

Not applicable

At a Glance

Berkshire Health Systems, Inc. (Berkshire) is a not-for-profit organization that provides health care services to Western Massachusetts. Some figures from its most recent audited financial statements (FY13):

\$26M

Total Profit/Loss

5.9%

Total Margin

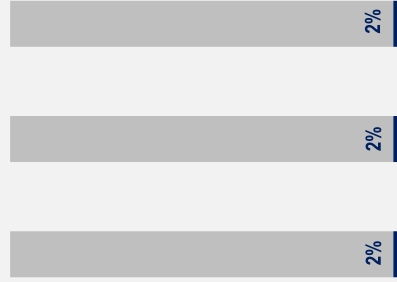
2

Acute Hospitals

3K

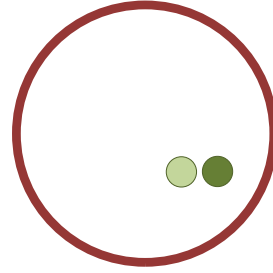
Employees (Approximately)

System's Percentage of total Massachusetts Acute Hospital...



Inpatient Discharges
Inpatient Revenue
Outpatient Revenue

Other Organizations
See Technical Appendix for details



Consolidating Eliminations:

(\$42M)
 (\$0.1K)

Heywood Healthcare

\$129 Million
Operating Revenue

\$54 Million
Net Assets

AH Acute Hospitals		Non-Acute Hospitals	PO Physician Organizations	Health Plans	At a Glance	
<div><div>Heywood Memorial</div><div><div>\$102M</div><div>\$50M</div></div></div> <div><div>Athol Hospital</div><div><div>\$19M</div><div>\$2M</div></div></div>		Not applicable	<div><div>Heywood Medical Group</div><div><div>\$9M</div><div>(\$0.5M)</div></div></div>	Not applicable	<div><div>\$3M</div><div>Total Profit/Loss</div></div> <div><div>2.1%</div><div>Total Margin</div></div> <div><div>2</div><div>Acute Hospitals</div></div> <div><div>1K</div><div>Employees (Approximately)</div></div>	System's Percentage of total Massachusetts Acute Hospital...
OP Other Health Care Providers		Not applicable				
Other Organizations See Technical Appendix for details						
<div><div>Consolidating Eliminations:</div><div><div><div>\$2M</div><div>\$0.5K</div></div></div></div>						



INTRODUCTION TO ACUTE HOSPITAL COHORT PROFILES

Acute hospitals were grouped into cohorts of similar hospitals as follows:

Academic Medical Centers (AMCs) are a subset of teaching hospitals. AMCs are characterized by (1) extensive research and teaching programs and (2) extensive resources for tertiary and quaternary care, and are (3) principal teaching hospitals for their respective medical schools and (4) full service hospitals with case mix intensity greater than 5% above the statewide average.

AMC Cohort page B1	
Beth Israel Deaconess Medical Center	Massachusetts General Hospital
Boston Medical Center	Tufts Medical Center
Brigham and Women's Hospital	UMass Memorial Medical Center

Teaching hospitals are those hospitals that report at least 25 full-time equivalent medical school residents per one hundred inpatient beds in accordance with Medicare Payment Advisory Commission (MedPAC) and are not classified as AMCs.

Teaching Hospital Cohort page B2	
Baystate Medical Center	Mount Auburn Hospital
Berkshire Medical Center	Saint Vincent Hospital
Brigham and Women's Faulkner Hospital	Steward Carney Hospital
Cambridge Health Alliance	Steward St. Elizabeth's Medical Center
Lahey Hospital & Medical Center	

Community hospitals are hospitals that are not teaching hospitals and have a public payer mix of less than 63%.

Community Hospital Cohort page B3	
Anna Jaques Hospital	MetroWest Medical Center
Baystate Mary Lane Hospital	Milford Regional Medical Center
Beth Israel Deaconess Hospital - Milton	Nantucket Cottage Hospital
Beth Israel Deaconess Hospital - Needham	Nashoba Valley Medical Center
Beth Israel Deaconess Hospital - Plymouth	Newton-Wellesley Hospital
Cooley Dickinson Hospital	Northeast Hospital
Emerson Hospital	South Shore Hospital
Hallmark Health	Steward Norwood Hospital
Lowell General Hospital	Winchester Hospital



Community-Disproportionate Share Hospitals (DSH) are community hospitals that are disproportionately reliant on public revenues by virtue of a public payer mix of 63% or greater. Public payers include Medicare, MassHealth and other government payers, including Commonwealth Care and the Health Safety Net.

Community-DSH Hospital Cohort page B4

Athol Hospital	Mercy Medical Center
Baystate Franklin Medical Center	Merrimack Valley Hospital
Cape Cod Hospital	Morton Hospital
Clinton Hospital	Noble Hospital
Fairview Hospital	North Shore Medical Center
Falmouth Hospital	Quincy Medical Center
Harrington Memorial Hospital	Signature Healthcare Brockton Hospital
HealthAlliance Hospital	Southcoast Hospitals Group
Heywood Hospital	Steward Good Samaritan Medical Center
Holyoke Medical Center	Steward Holy Family Hospital
Lawrence General Hospital	Steward Saint Anne's Hospital
Marlborough Hospital	Sturdy Memorial Hospital
Martha's Vineyard Hospital	Wing Memorial Hospital

Specialty hospitals were not included in any cohort comparison analysis due the unique patient populations they serve and/or the unique sets of services they provide. Specialty hospitals are included in some statewide analyses. Individual profiles for these hospitals can be found in Section C.

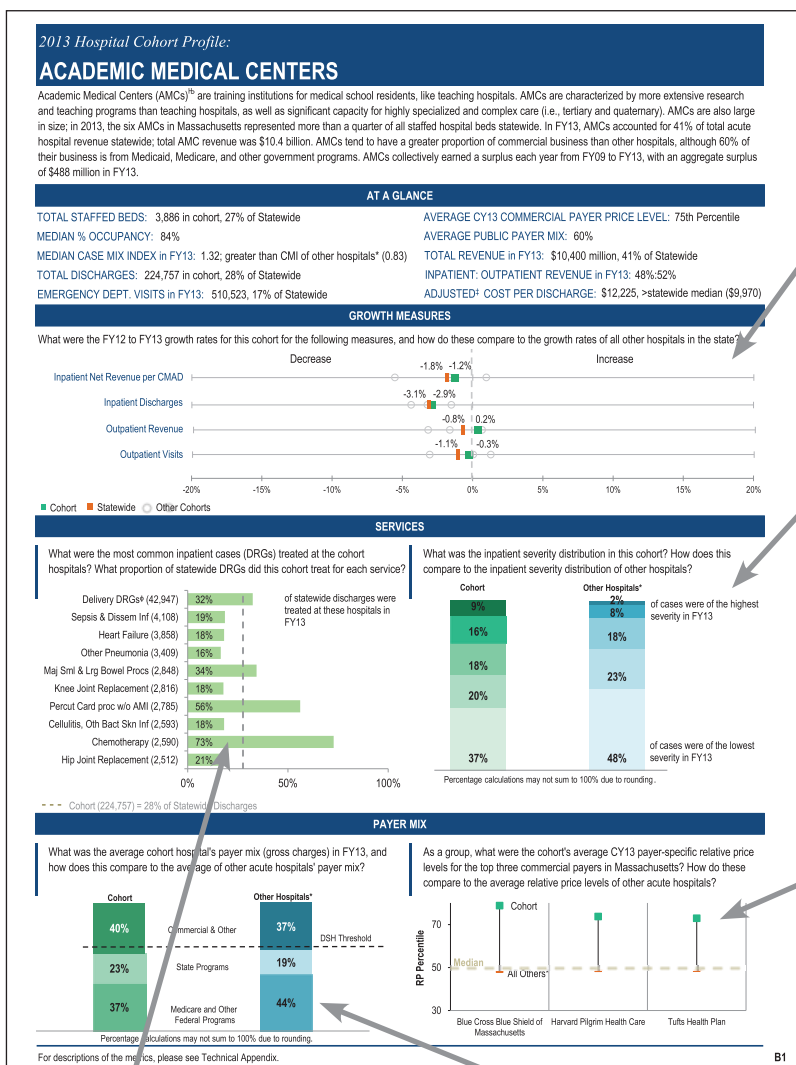
Specialty Hospitals

Boston Children's Hospital	Kindred Hospital - Boston North Shore
Dana-Farber Cancer Institute	Massachusetts Eye and Ear Infirmary
Kindred Hospital - Boston	New England Baptist Hospital

For detailed descriptions of the data sources and metrics used in the acute hospital cohort profiles, please see the Technical Appendix.

How to Read Acute Hospital Cohort Profiles – FY13

This sheet provides a brief introduction to the metrics on the hospital cohort profiles. Definitions and notes on all metrics are available in the Technical Appendix.



Growth Measures

This section shows one-year growth rates (FY2012 – FY2013) of utilization and revenue trend metrics.

Inpatient Severity Distribution

The severity distribution of all inpatient cases treated at cohort hospitals is shown in the green stacked column. The blue stacked column allows comparison to all other acute hospitals, excluding Specialty hospitals.

Relative Price (RP)

Compares different provider prices within a payer's network relative to the network's average price level. The cohort's green square allows a price comparison to all other hospitals' (excluding Specialty hospitals) orange dash.

The dashed line shows the payer's network median relative price.

Types of Inpatient Cases

The cohort's most frequent cases are listed, with the number of discharges in each group and a bar representing the cohort's share of statewide cases.

Payer Mix

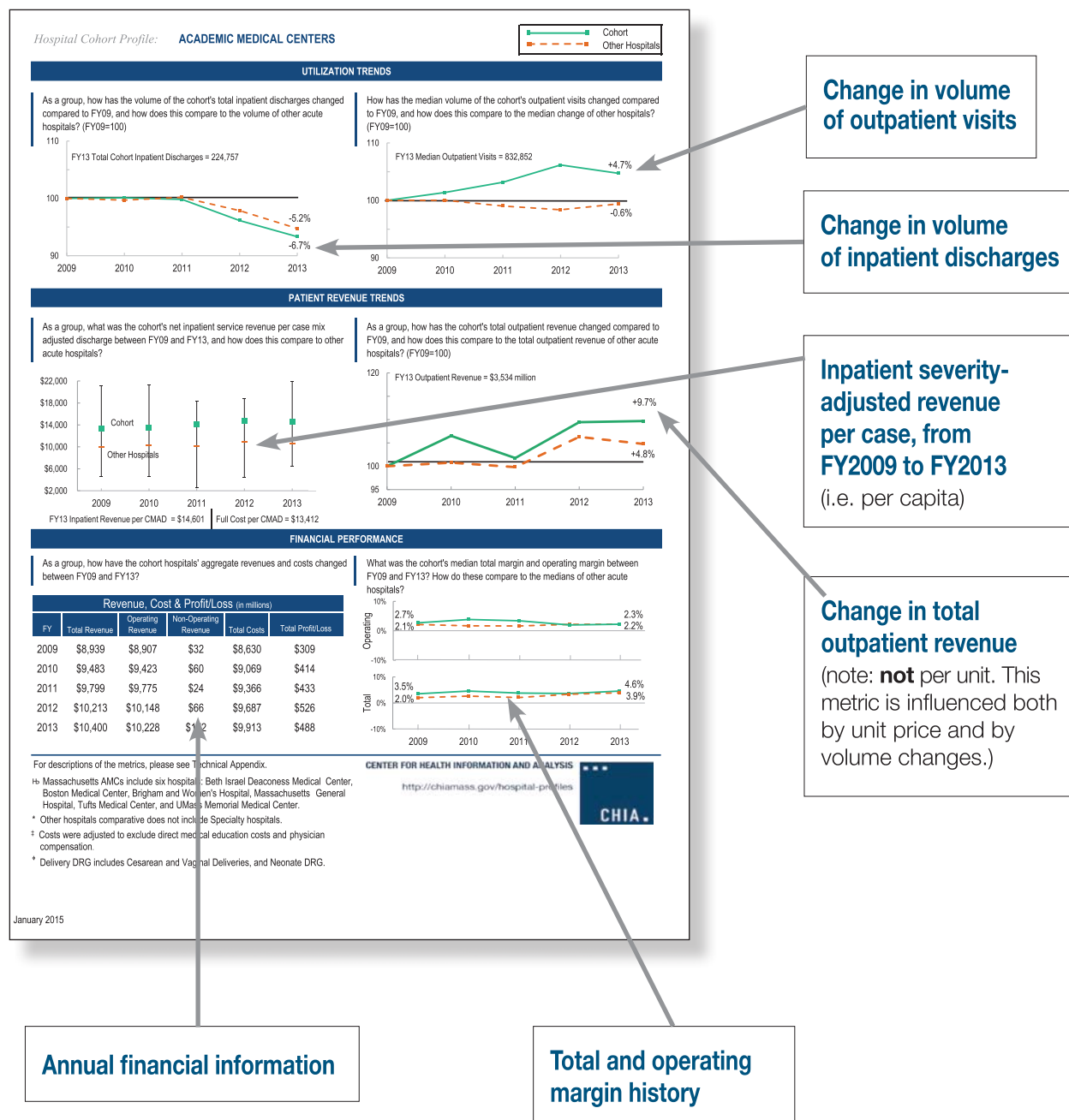
This cohort's average hospital's share of business from federal and state programs and commercial payers is shown in the green column. The blue column allows comparison to the average non-cohort, non-Specialty acute hospital in Massachusetts.

The dashed line indicates whether the average hospital in the cohort receives 63% or more of its business from government programs (the bottom two sections of each column). This is the 'DSH Threshold'.

How to Read Acute Hospital Cohort Profiles – FY13

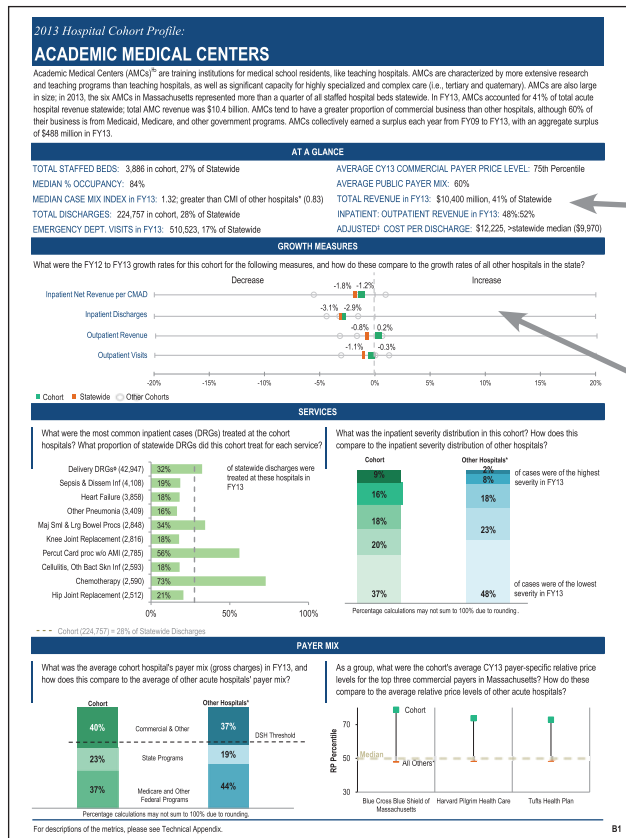
Each of the first four graphs compares trends at the featured cohort (in green) to the trend among all other acute hospitals, excluding Specialty hospitals (in orange). Both trends are anchored at 100 to emphasize recent changes. The labeled points are cumulative over the time period.

Absolute differences between the cohort and other hospitals cannot be read off these graphs, but are available in the data supplement to these reports.



Changes from FY12 Acute Hospital Cohort Profiles

What changed from Acute Hospital Cohort Profiles – Data through Fiscal Year 2012



New At a Glance Measures include Emergency Department Visits and Adjusted Cost per Case Mix Adjusted Discharge (CMAD).

New Growth Measures section shows 1-year growth rates (FY12-FY13) of revenue and utilization trend metrics. Cohort growth measures are compared to all other hospitals.

FY13 Values are noted on all trend measures.

New Revenue Trends Metrics replace cost trends metrics on *Data through FY12 Profile*.

Financial Performance Metrics now include operating and non-operating revenue, and operating margin.

Methodology:

- Cohort and 'all other hospital' comparisons use medians (instead of the averages) of growth rates for utilization, revenue, and financial performance.¹



¹ Payer mix comparison (average) and cohort financial performance (median) calculations did not change from *Data through FY12 Profile*.

2013 Hospital Cohort Profile:

ACADEMIC MEDICAL CENTERS

Academic Medical Centers (AMCs)^{1b} are training institutions for medical school residents, like teaching hospitals. AMCs are characterized by more extensive research and teaching programs than teaching hospitals, as well as significant capacity for highly specialized and complex care (i.e., tertiary and quaternary). AMCs are also large in size; in 2013, the six AMCs in Massachusetts represented more than a quarter of all staffed hospital beds statewide. In FY13, AMCs accounted for 41% of total acute hospital revenue statewide; total AMC revenue was \$10.4 billion. AMCs tend to have a greater proportion of commercial business than other hospitals, although 60% of their business is from Medicaid, Medicare, and other government programs. AMCs collectively earned a surplus each year from FY09 to FY13, with an aggregate surplus of \$488 million in FY13.

AT A GLANCE

TOTAL STAFFED BEDS: 3,886 in cohort, 27% of Statewide

MEDIAN % OCCUPANCY: 84%

MEDIAN CASE MIX INDEX in FY13: 1.32; greater than CMI of other hospitals* (0.83)

TOTAL DISCHARGES: 224,757 in cohort, 28% of Statewide

EMERGENCY DEPT. VISITS in FY13: 510,523, 17% of Statewide

AVERAGE CY13 COMMERCIAL PAYER PRICE LEVEL: 75th Percentile

AVERAGE PUBLIC PAYER MIX: 60%

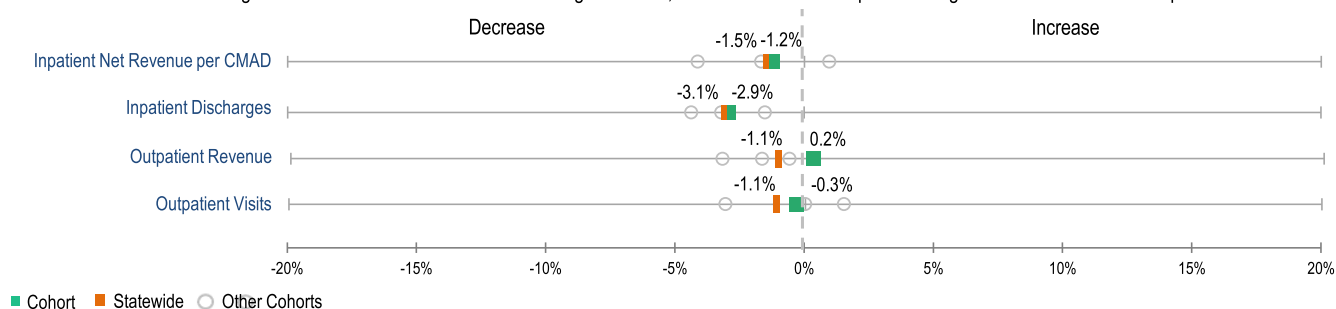
TOTAL REVENUE in FY13: \$10,400 million, 41% of Statewide

INPATIENT: OUTPATIENT REVENUE in FY13: 48%:52%

ADJUSTED[†] COST PER DISCHARGE: \$12,225, >statewide median (\$9,970)

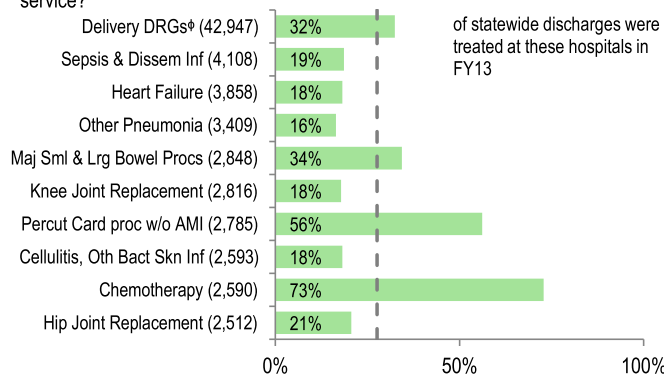
GROWTH MEASURES

What were the FY12 to FY13 growth rates for this cohort for the following measures, and how do these compare to the growth rates of all other hospitals in the state?

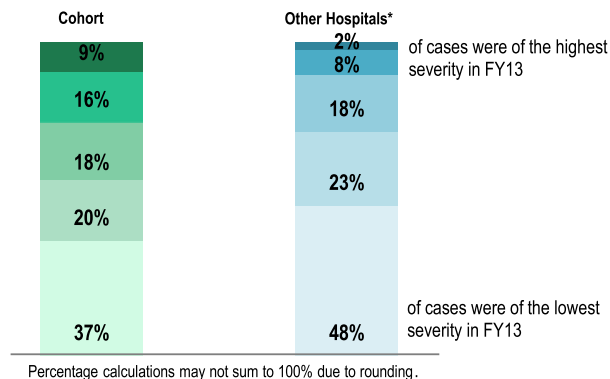


SERVICES

What were the most common inpatient cases (DRGs) treated at the cohort hospitals? What proportion of statewide DRGs did this cohort treat for each service?

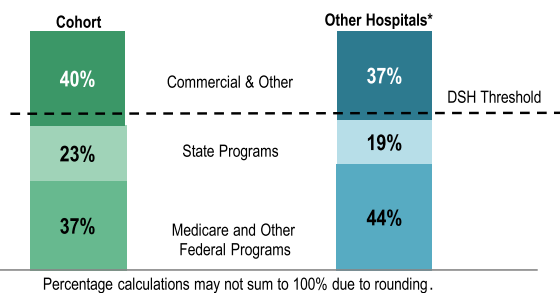


What was the inpatient severity distribution in this cohort? How does this compare to the inpatient severity distribution of other hospitals?

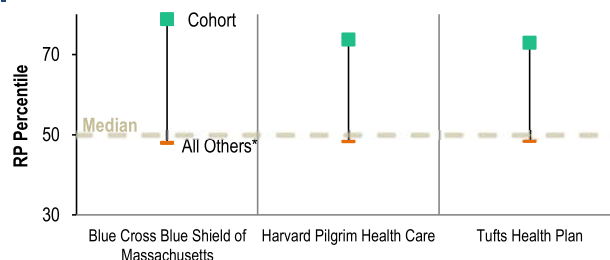


PAYER MIX

What was the average cohort hospital's payer mix (gross charges) in FY13, and how does this compare to the average of other acute hospitals' payer mix?



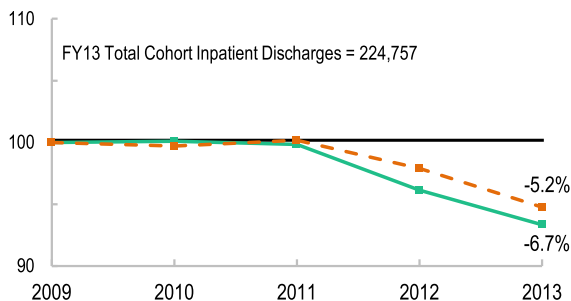
As a group, what were the cohort's average CY13 payer-specific relative price levels for the top three commercial payers in Massachusetts? How do these compare to the average relative price levels of other acute hospitals?



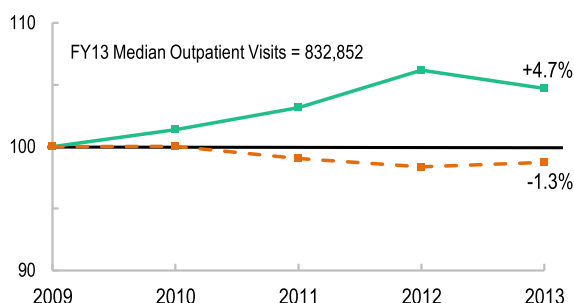
For descriptions of the metrics, please see Technical Appendix.

Hospital Cohort Profile: **ACADEMIC MEDICAL CENTERS****UTILIZATION TRENDS**

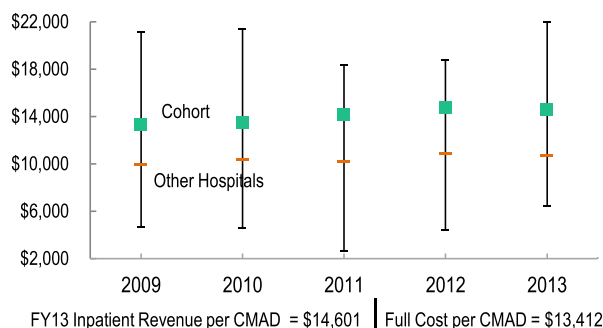
As a group, how has the volume of the cohort's total inpatient discharges changed compared to FY09, and how does this compare to the volume of other acute hospitals? (FY09=100)



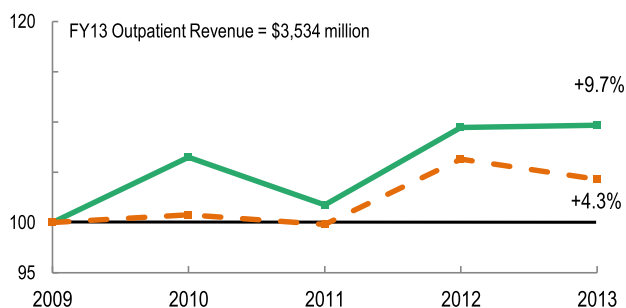
How has the median volume of the cohort's outpatient visits changed compared to FY09, and how does this compare to the median change of other hospitals? (FY09=100)

**PATIENT REVENUE TRENDS**

As a group, what was the cohort's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this compare to other acute hospitals?



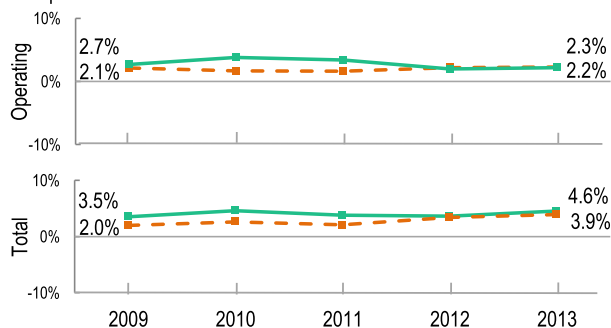
As a group, how has the cohort's total outpatient revenue changed compared to FY09, and how does this compare to the total outpatient revenue of other acute hospitals? (FY09=100)

**FINANCIAL PERFORMANCE**

As a group, how have the cohort hospitals' aggregate revenues and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$8,939	\$8,907	\$32	\$8,630	\$309
2010	\$9,483	\$9,423	\$60	\$9,069	\$414
2011	\$9,799	\$9,775	\$24	\$9,366	\$433
2012	\$10,213	\$10,148	\$66	\$9,687	\$526
2013	\$10,400	\$10,228	\$172	\$9,913	\$488

What was the cohort's median total margin and operating margin between FY09 and FY13? How do these compare to the medians of other acute hospitals?



For descriptions of the metrics, please see Technical Appendix.

† Massachusetts AMCs include six hospitals: Beth Israel Deaconess Medical Center, Boston Medical Center, Brigham and Women's Hospital, Massachusetts General Hospital, Tufts Medical Center, and UMass Memorial Medical Center.

* Other hospitals comparative does not include Specialty hospitals.

† Costs were adjusted to exclude direct medical education costs and physician compensation.

* Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>



2013 Hospital Cohort Profile:

TEACHING HOSPITALS

Teaching hospitals are training institutions with at least 25 full-time equivalent medical school residents per one hundred inpatient beds that are not considered academic medical centers (AMCs). The nine teaching hospitals in Massachusetts tend to be larger hospitals, collectively representing nearly one-fifth of all staffed hospital beds statewide in 2013. In FY13, teaching hospitals accounted for 16% of total acute hospital revenue statewide; total teaching hospital revenue was \$4.0 billion. Teaching hospitals tend to have a greater proportion of business from Medicaid, Medicare, and other government programs than other hospitals, with 64% of their business from these public payers in FY13. Teaching hospitals collectively earned a surplus each year from FY09 to FY13, with an aggregate surplus of \$258 million in FY13.

AT A GLANCE

TOTAL STAFFED BEDS: 2,502 in cohort, 17% of Statewide

MEDIAN % OCCUPANCY: 71%

MEDIAN CASE MIX INDEX in FY13: 0.94, greater than CMI of other hospitals* (0.84)

TOTAL DISCHARGES: 144,473 in cohort, 18% of Statewide

EMERGENCY DEPT. VISITS in FY13: 488,524, 16% of Statewide

AVERAGE CY13 COMMERCIAL PAYER PRICE LEVEL: 56th Percentile

AVERAGE PUBLIC PAYER MIX: 64%

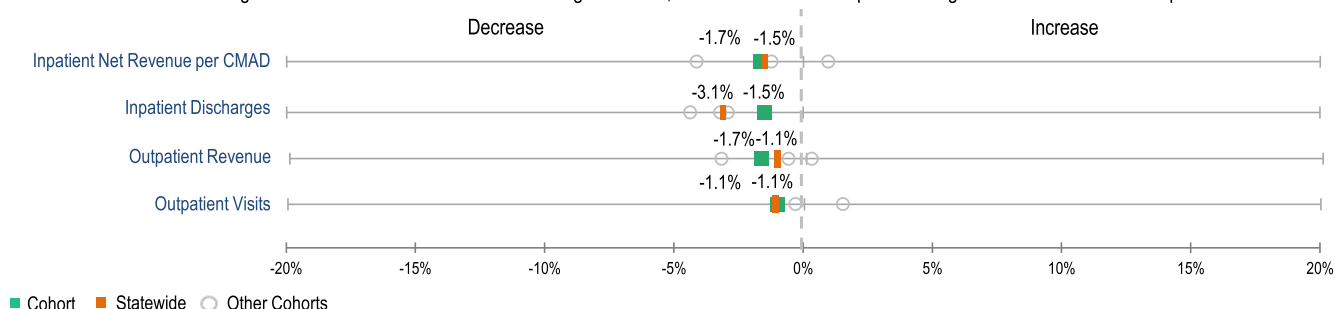
TOTAL REVENUE in FY13: \$4,004 million, 16% of Statewide

INPATIENT: OUTPATIENT REVENUE in FY13: 35%:65%

ADJUSTED[†] COST PER DISCHARGE: \$9,788, < statewide median (\$9,970)

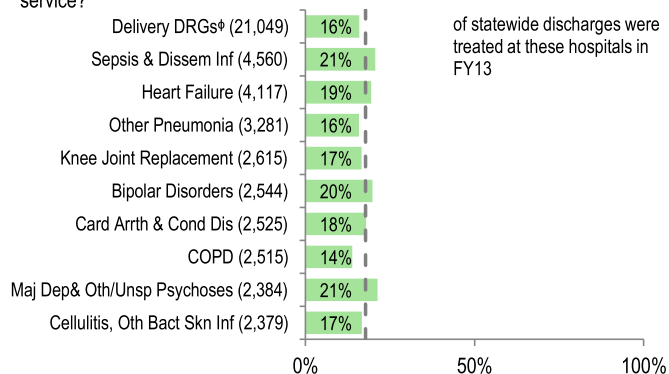
GROWTH MEASURES

What were the FY12 to FY13 growth rates for this cohort for the following measures, and how do these compare to the growth rates of all other hospitals in the state?

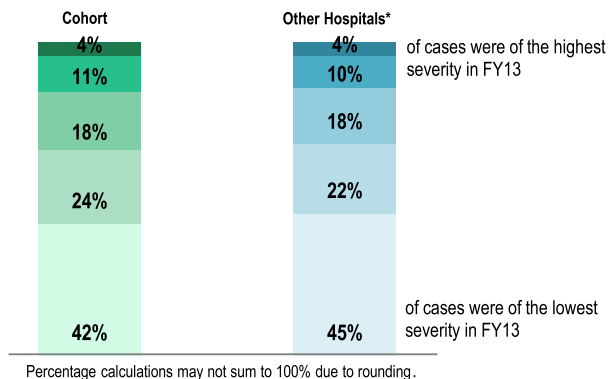


SERVICES

What were the most common inpatient cases (DRGs) treated at the cohort hospitals? What proportion of statewide DRGs did this cohort treat for each service?

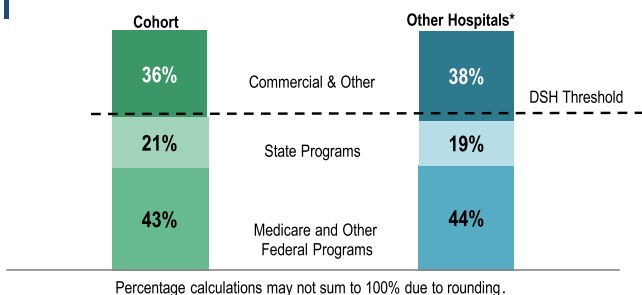


What was the inpatient severity distribution in this cohort? How does this compare to the inpatient severity distribution of other hospitals?

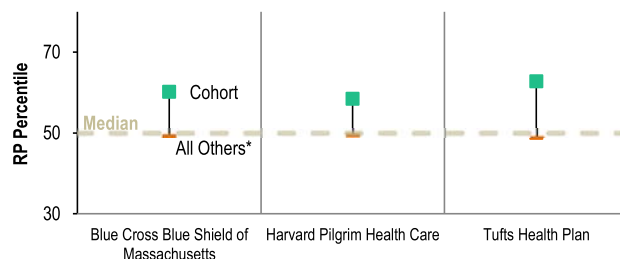


PAYER MIX

What was the average cohort hospital's payer mix (gross charges) in FY13, and how does this compare to the average of other acute hospitals' payer mix?



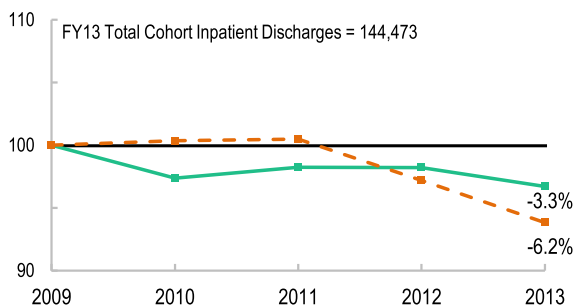
As a group, what were the cohort's average CY13 payer-specific relative price levels for the top three commercial payers in Massachusetts? How do these compare to the average relative price levels of other acute hospitals?



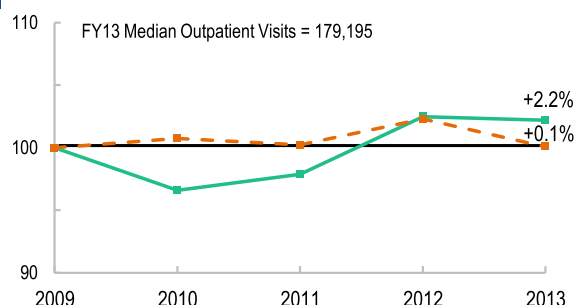
For descriptions of the metrics, please see Technical Appendix.

Hospital Cohort Profile: **TEACHING HOSPITALS****UTILIZATION TRENDS**

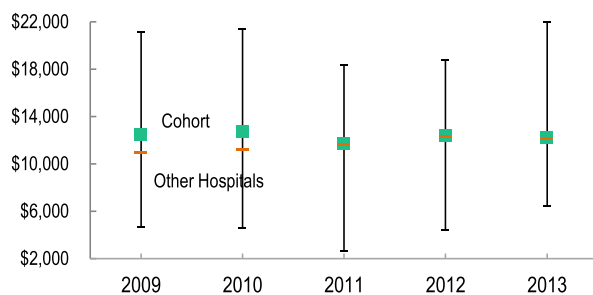
As a group, how has the volume of the cohort's total inpatient discharges changed compared to FY09, and how does this compare to the volume of other acute hospitals? (FY09=100)



How has the median volume of the cohort's outpatient visits changed compared to FY09, and how does this compare to the median change of other hospitals? (FY09=100)

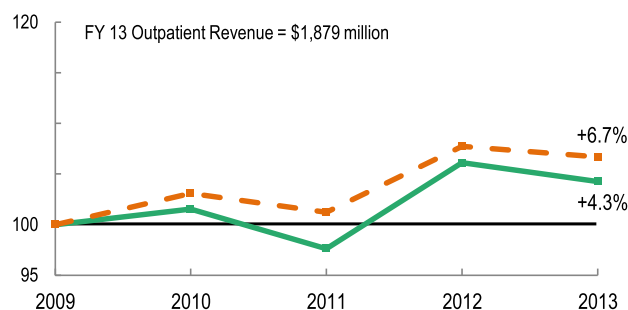
**PATIENT REVENUE TRENDS**

As a group, what was the cohort's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this compare to other acute hospitals?



FY13 Inpatient Revenue per CMAD = \$12,181 | Full Cost per CMAD = \$10,668

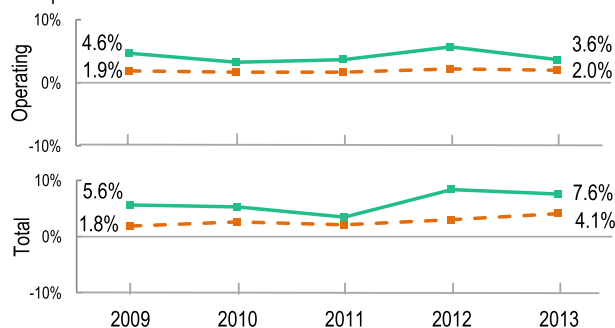
As a group, how has the cohort's total outpatient revenue changed compared to FY09, and how does this compare to the total outpatient revenue of other acute hospitals? (FY09=100)

**FINANCIAL PERFORMANCE**

As a group, how have the cohort hospitals' aggregate revenues and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$3,898	\$3,884	\$13	\$3,749	\$148
2010	\$3,990	\$3,932	\$59	\$3,793	\$197
2011	\$3,670	\$3,654	\$15	\$3,569	\$101
2012	\$3,991	\$3,931	\$59	\$3,752	\$239
2013	\$4,004	\$3,939	\$66	\$3,747	\$258

What was the cohort's median total margin and operating margin between FY09 and FY13? How do these compare to the medians of other acute hospitals?



For descriptions of the metrics, please see Technical Appendix.

* Other hospitals comparative does not include Specialty hospitals.

† Costs were adjusted to exclude direct medical education costs and physician compensation.

* Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>



2013 Hospital Cohort Profile:

COMMUNITY HOSPITALS

Community hospitals are hospitals that are not characterized as specialty, teaching, or academic medical centers. These hospitals also do not meet the criteria for Disproportionate Share Hospital (DSH) status. There are 18 community hospitals in Massachusetts that range in size from 19 to 406 staffed beds. Collectively, in 2013, community hospitals represented roughly one-quarter of all staffed hospital beds statewide. In FY13, community hospitals accounted for 15% of total acute hospital revenue statewide; total community hospital revenue was \$3.7 billion. Community hospitals tend to have a greater proportion of commercial business than other hospitals, although 55% of their business comes from Medicaid, Medicare, and other government programs. Community hospitals collectively earned a surplus each year from FY09 to FY13, with an aggregate surplus of \$139 million in FY13.

AT A GLANCE

TOTAL STAFFED BEDS: 3,306 in cohort, 23% of Statewide

MEDIAN % OCCUPANCY: 64%

MEDIAN CASE MIX INDEX in FY13: 0.78, less than CMI of other hospitals* (0.87)

TOTAL DISCHARGES: 191,842 in cohort, 23% of Statewide

EMERGENCY DEPT. VISITS in FY13: 796,542, 26% of Statewide

AVERAGE CY13 COMMERCIAL PAYER PRICE LEVEL: 47th Percentile

AVERAGE PUBLIC PAYER MIX: 55%

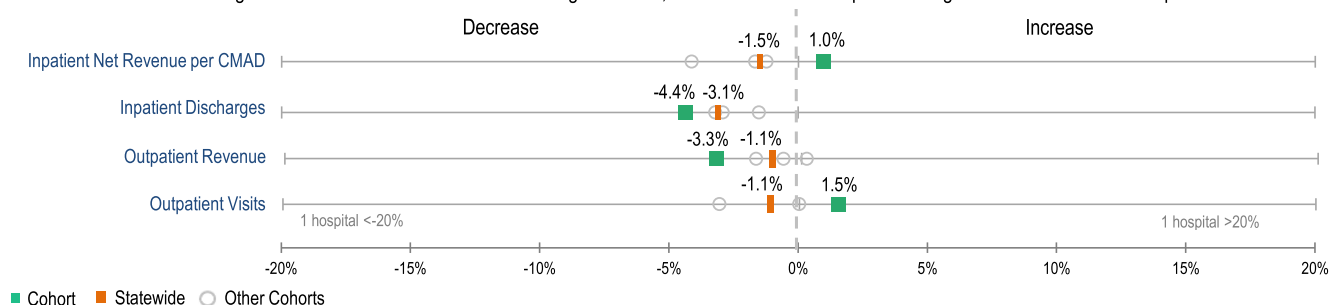
TOTAL REVENUE in FY13: \$3,721 million, 15% of Statewide

INPATIENT: OUTPATIENT REVENUE in FY13: 31%:69%

ADJUSTED[†] COST PER DISCHARGE: \$9,838, < statewide median (\$9,970)

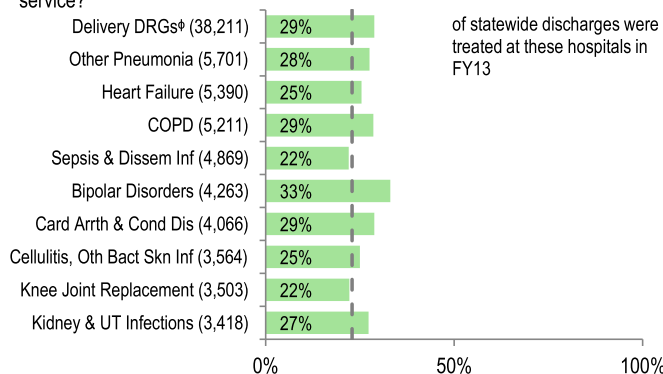
GROWTH MEASURES

What were the FY12 to FY13 growth rates for this cohort for the following measures, and how do these compare to the growth rates of all other hospitals in the state?



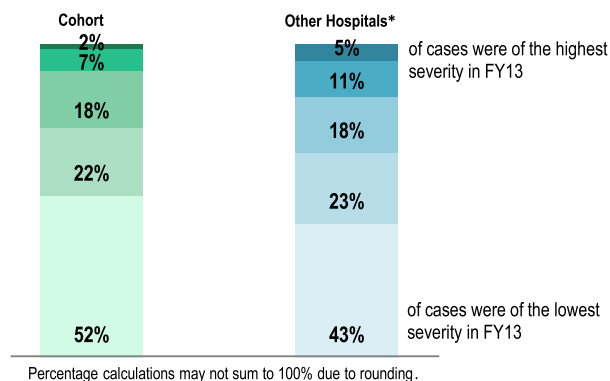
SERVICES

What were the most common inpatient cases (DRGs) treated at the cohort hospitals? What proportion of statewide DRGs did this cohort treat for each service?



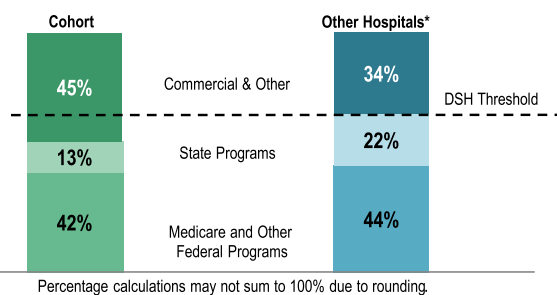
--- Cohort (191,842) = 23% of Statewide Discharges

What was the inpatient severity distribution in this cohort? How does this compare to the inpatient severity distribution of other hospitals?

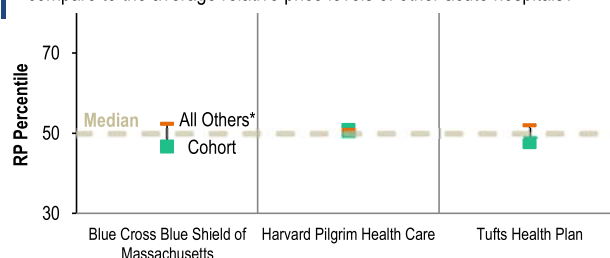


PAYER MIX

What was the average cohort hospital's payer mix (gross charges) in FY13, and how does this compare to the average of other acute hospitals' payer mix?



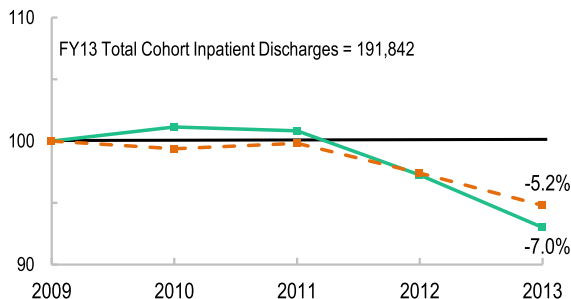
As a group, what were the cohort's average CY13 payer-specific relative price levels for the top three commercial payers in Massachusetts? How do these compare to the average relative price levels of other acute hospitals?



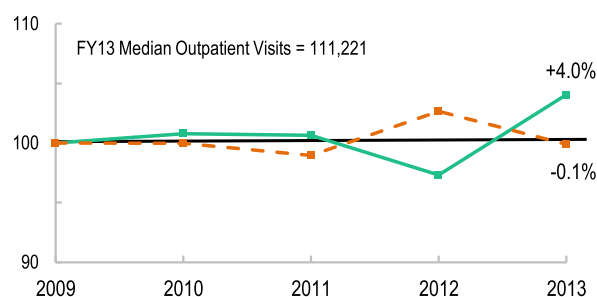
For descriptions of the metrics, please see Technical Appendix.

Hospital Cohort Profile: **COMMUNITY HOSPITALS****UTILIZATION TRENDS**

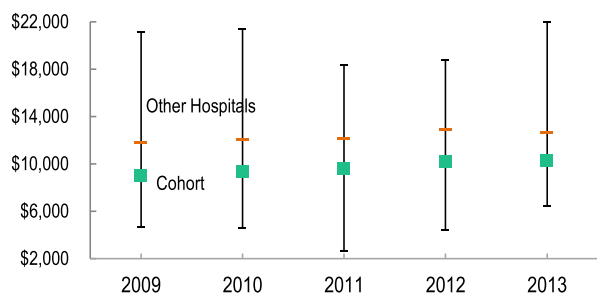
As a group, how has the volume of the cohort's total inpatient discharges changed compared to FY09, and how does this compare to the volume of other acute hospitals? (FY09=100)



How has the median volume of the cohort's outpatient visits changed compared to FY09, and how does this compare to the median change of other hospitals? (FY09=100)

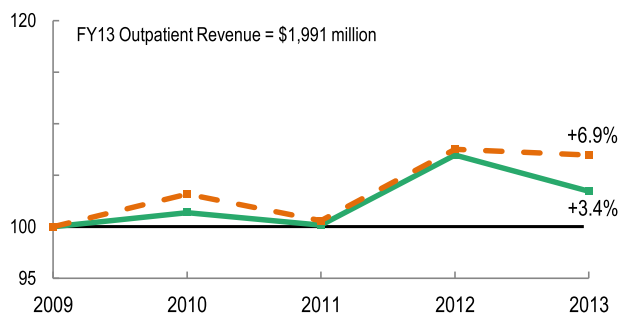
**PATIENT REVENUE TRENDS**

As a group, what was the cohort's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this compare to other acute hospitals?



FY13 Inpatient Revenue per CMAD = \$10,286 | Full Cost per CMAD = \$10,278

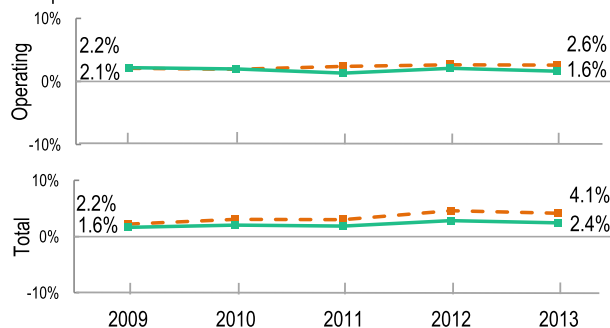
As a group, how has the cohort's total outpatient revenue changed compared to FY09, and how does this compare to the total outpatient revenue of other acute hospitals? (FY09=100)

**FINANCIAL PERFORMANCE**

As a group, how have the cohort hospitals' aggregate revenues and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$3,408	\$3,423	\$ (15)	\$3,350	\$58
2010	\$3,556	\$3,543	\$13	\$3,480	\$76
2011	\$3,562	\$3,549	\$13	\$3,485	\$76
2012	\$3,706	\$3,660	\$46	\$3,548	\$158
2013	\$3,721	\$3,663	\$58	\$3,583	\$139

What was the cohort's median total margin and operating margin between FY09 and FY13? How do these compare to the medians of other acute hospitals?



For descriptions of the metrics, please see Technical Appendix.

† Costs were adjusted to exclude direct medical education costs and physician compensation.

* Other hospitals comparative does not include Specialty hospitals.

† Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>



2013 Hospital Cohort Profile:

COMMUNITY-DISPROPORTIONATE SHARE HOSPITALS

Community-Disproportionate Share Hospitals (DSH) are a subset of community hospitals that receive 63% or more of their business from Medicare, Medicaid, and other government programs. There were 27 community-DSH hospitals in Massachusetts in FY13, compared to 24 in FY12, ranging in size from 15 to 556 staffed beds. Collectively, in 2013, community-DSH hospitals represented nearly 30% of all staffed hospital beds statewide. In FY13, community-DSH hospitals accounted for 17% of total acute hospital revenue statewide; total community-DSH revenue was \$4.4 billion. Community-DSH hospitals by definition have the greatest proportion of business from public payers, relative to other hospitals, with 68% of their business in FY13 from Medicaid, Medicare, and other government programs. Community-DSH hospitals collectively earned a surplus each year from FY09 to FY13, with an aggregate surplus of \$127 million in FY13.

AT A GLANCE

TOTAL STAFFED BEDS: 4,212 in cohort, 29% of Statewide

MEDIAN % OCCUPANCY: 64%

MEDIAN CASE MIX INDEX in FY13: 0.85, greater than CMI of other hospitals* (0.83)

TOTAL DISCHARGES: 225,433 in cohort, 28% of Statewide

EMERGENCY DEPT. VISITS in FY13: 1,190,675, 39% of Statewide

AVERAGE CY13 COMMERCIAL PAYER PRICE LEVEL: 43rd Percentile

AVERAGE PUBLIC PAYER MIX: 68%

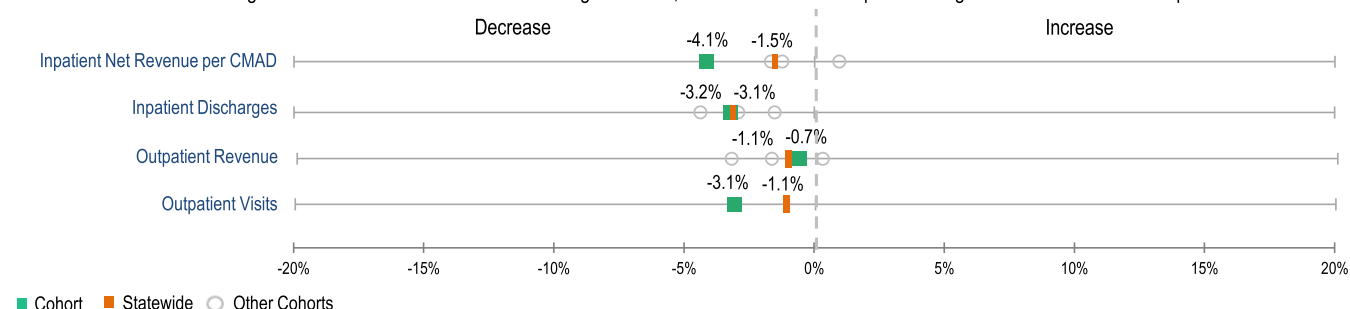
TOTAL REVENUE in FY13: \$4,353 million, 17% of Statewide

INPATIENT: OUTPATIENT REVENUE in FY13: 31%:69%

ADJUSTED* COST PER DISCHARGE: \$9,902, < statewide median (\$9,970)

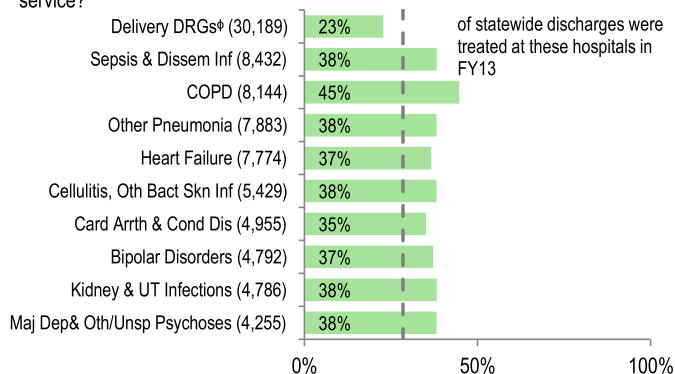
GROWTH MEASURES

What were the FY12 to FY13 growth rates for this cohort for the following measures, and how do these compare to the growth rates of all other hospitals in the state?

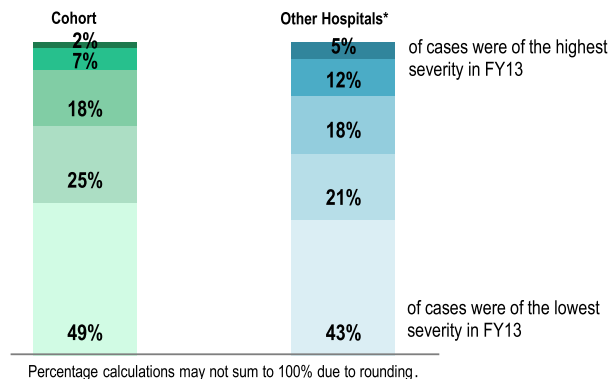


SERVICES

What were the most common inpatient cases (DRGs) treated at the cohort hospitals? What proportion of statewide DRGs did this cohort treat for each service?



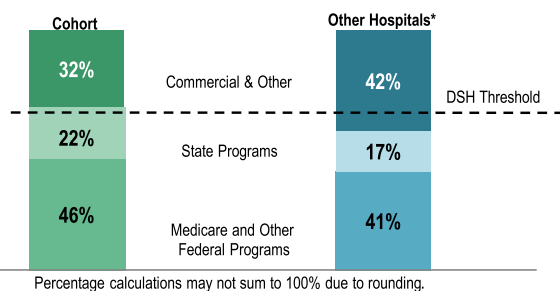
What was the inpatient severity distribution in this cohort? How does this compare to the inpatient severity distribution of other hospitals?



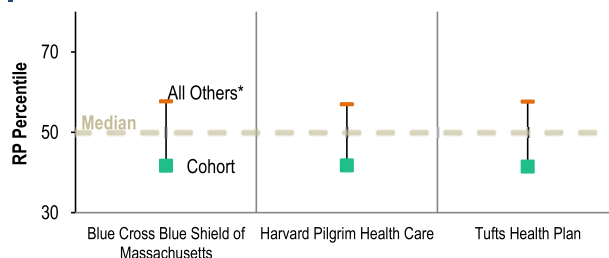
--- Cohort (225,433) = 28% of Statewide Discharges

PAYER MIX

What was the average cohort hospital's payer mix (gross charges) in FY13, and how does this compare to the average of other acute hospitals' payer mix?



As a group, what were the cohort's average CY13 payer-specific relative price levels for the top three commercial payers in Massachusetts? How do these compare to the average relative price levels of other acute hospitals?



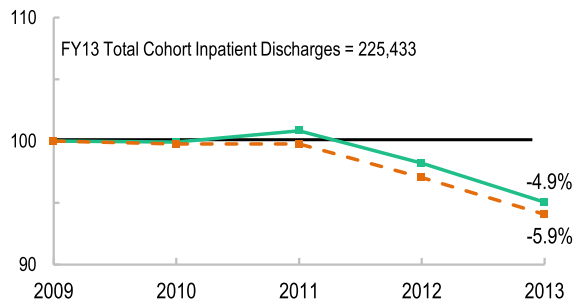
For descriptions of the metrics, please see Technical Appendix.

Hospital Cohort Profile: COMMUNITY-DISPROPORTIONATE SHARE HOSPITALS

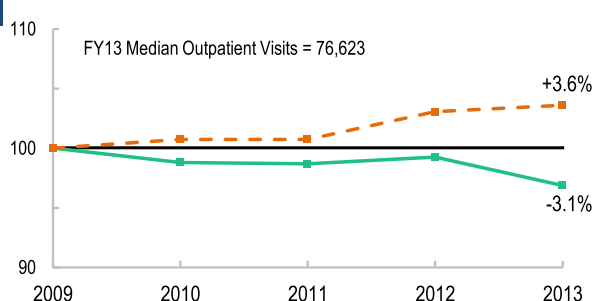


UTILIZATION TRENDS

As a group, how has the volume of the cohort's total inpatient discharges changed compared to FY09, and how does this compare to the volume of other acute hospitals? (FY09=100)

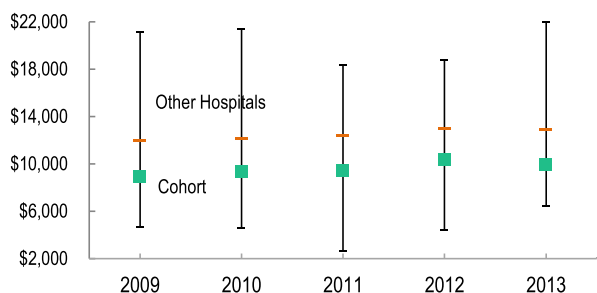


How has the median volume of the cohort's outpatient visits changed compared to FY09, and how does this compare to the median change of other hospitals?



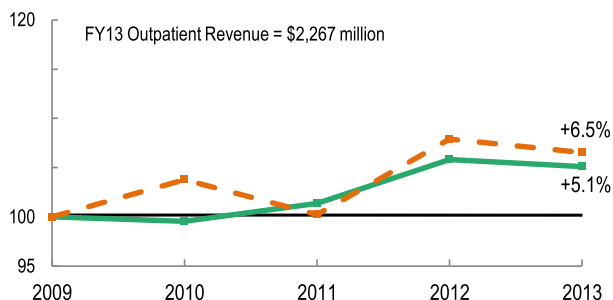
PATIENT REVENUE TRENDS

As a group, what was the cohort's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this compare to other acute hospitals?



FY13 Inpatient Revenue per CMAD = \$9,893 | Full Cost per CMAD = \$10,526

As a group, how has the cohort's total outpatient revenue changed compared to FY09, and how does this compare to the total outpatient revenue of other acute hospitals? (FY09=100)

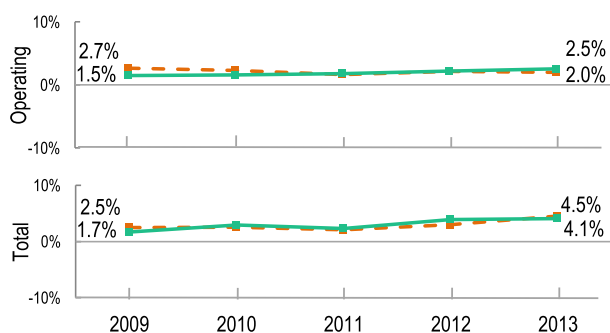


FINANCIAL PERFORMANCE

As a group, how have the cohort hospitals' aggregate revenues and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$4,044	\$4,043	\$1	\$3,935	\$109
2010	\$4,170	\$4,143	\$27	\$4,041	\$129
2011	\$4,219	\$4,187	\$32	\$4,102	\$117
2012	\$4,584	\$4,541	\$42	\$4,365	\$219
2013	\$4,353	\$4,296	\$57	\$4,226	\$127

What was the cohort's median total margin and operating margin between FY09 and FY13? How do these compare to the medians of other acute hospitals?



For descriptions of the metrics, please see Technical Appendix.

† Costs were adjusted to exclude direct medical education costs and physician compensation.

* Other hospitals comparative does not include Specialty hospitals.

† Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>





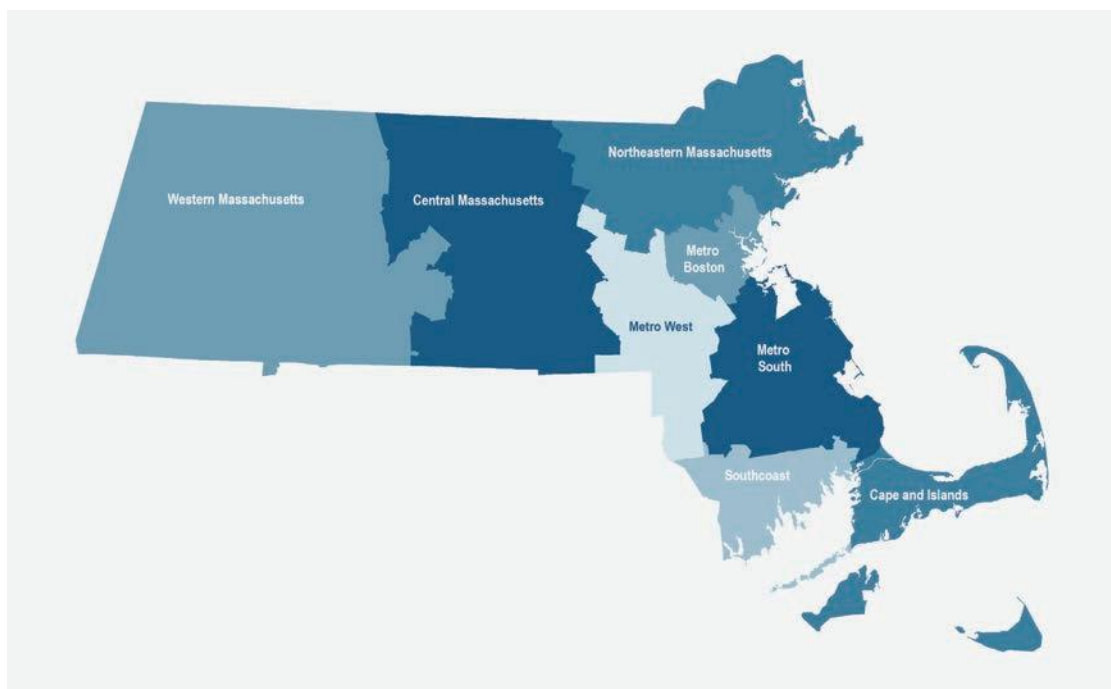
INTRODUCTION TO ACUTE HOSPITAL PROFILES

An **acute hospital** is a hospital that is licensed by the Massachusetts Department of Public Health and contains a majority of medical-surgical, pediatric, obstetric, and maternity beds.

Each hospital is assigned to a cohort of similar hospitals: academic medical centers (AMCs), teaching hospitals, community hospitals, and community-Disproportionate Share Hospitals (DSH). When presenting trends for utilization, costs, financial performance, and quality, baseline data for each hospital's cohort provides a point of comparison. Specialty hospitals may be included in statewide analyses, but are not identified with a distinct cohort.

For detailed descriptions of the data sources and metrics used in the acute hospital profiles, please see the Technical Appendix.

When presenting hospital service data, CHIA assigned acute hospitals to eight geographic regions. These regions are based on the sixteen geographic regions defined by the Massachusetts Health Policy Commission, which were created by consolidating the 66 Dartmouth Atlas Hospital Services Areas.



To view a list of the hospitals within each region, please see Technical Appendix or refer to www.chiamass.gov/massachusetts-acute-hospital-profiles/.



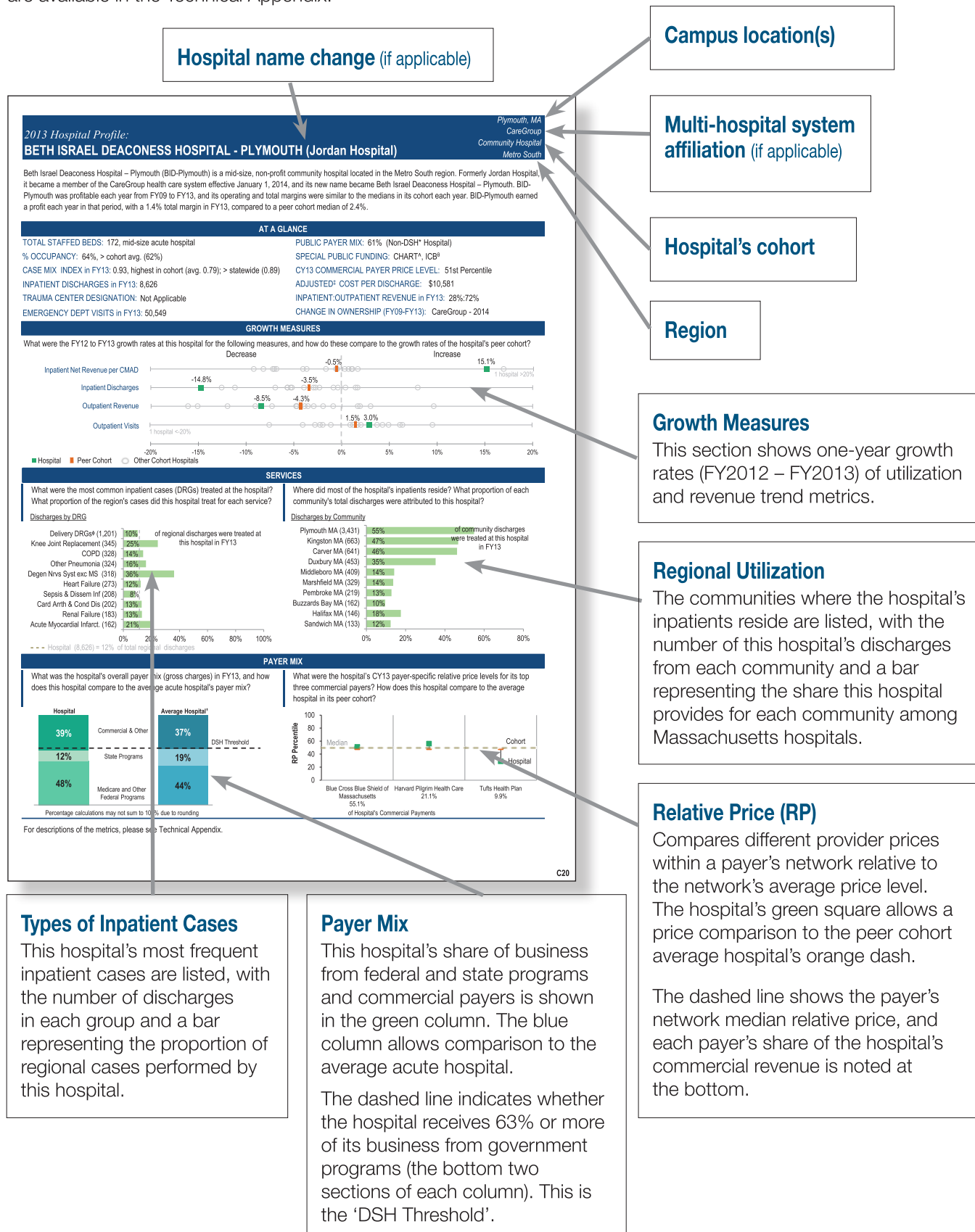
The hospital profiles are organized by cohort (see p. Bi for a listing). An alphabetical index of acute hospitals is provided below.

Hospital	
Anna Jaques Hospital	C16
Athol Hospital	C34
Baystate Franklin Medical Center	C35
Baystate Mary Lane Hospital	C17
Baystate Medical Center	C7
Berkshire Medical Center	C8
Beth Israel Deaconess Hospital - Milton	C18
Beth Israel Deaconess Hospital - Needham	C19
Beth Israel Deaconess Hospital - Plymouth	C20
Beth Israel Deaconess Medical Center	C1
Boston Children's Hospital	C60
Boston Medical Center	C2
Brigham and Women's Faulkner Hospital	C9
Brigham and Women's Hospital	C3
Cambridge Health Alliance	C10
Cape Cod Hospital	C36
Clinton Hospital	C37
Cooley Dickinson Hospital	C21
Dana-Farber Cancer Institute	C61
Emerson Hospital	C22
Fairview Hospital	C38
Falmouth Hospital	C39
Hallmark Health	C23
Harrington Memorial Hospital	C40
HealthAlliance Hospital	C41
Heywood Hospital	C42
Holyoke Medical Center	C43
Kindred Hospital - Boston	C62
Kindred Hospital - Boston North Shore	C63
Lahey Hospital & Medical Center	C11
Lawrence General Hospital	C44
Lowell General Hospital	C24
Marlborough Hospital	C45

Hospital	
Martha's Vineyard Hospital	C46
Massachusetts Eye and Ear Infirmary	C64
Massachusetts General Hospital	C4
Mercy Medical Center	C47
Merrimack Valley Hospital	C48
MetroWest Medical Center	C25
Milford Regional Medical Center	C26
Morton Hospital	C49
Mount Auburn Hospital	C12
Nantucket Cottage Hospital	C27
Nashoba Valley Medical Center	C28
New England Baptist Hospital	C65
Newton-Wellesley Hospital	C29
Noble Hospital	C50
North Shore Medical Center	C51
Northeast Hospital	C30
Quincy Medical Center	C52
Saint Vincent Hospital	C13
Signature Healthcare Brockton Hospital	C53
South Shore Hospital	C31
Southcoast Hospitals Group	C54
Steward Carney Hospital	C14
Steward Good Samaritan Medical Center	C55
Steward Holy Family Hospital	C56
Steward Norwood Hospital	C32
Steward Saint Anne's Hospital	C57
Steward St. Elizabeth's Medical Center	C15
Sturdy Memorial Hospital	C58
Tufts Medical Center	C5
UMass Memorial Medical Center	C6
Winchester Hospital	C33
Wing Memorial Hospital	C59

How to Read Acute Hospital Profiles – FY13

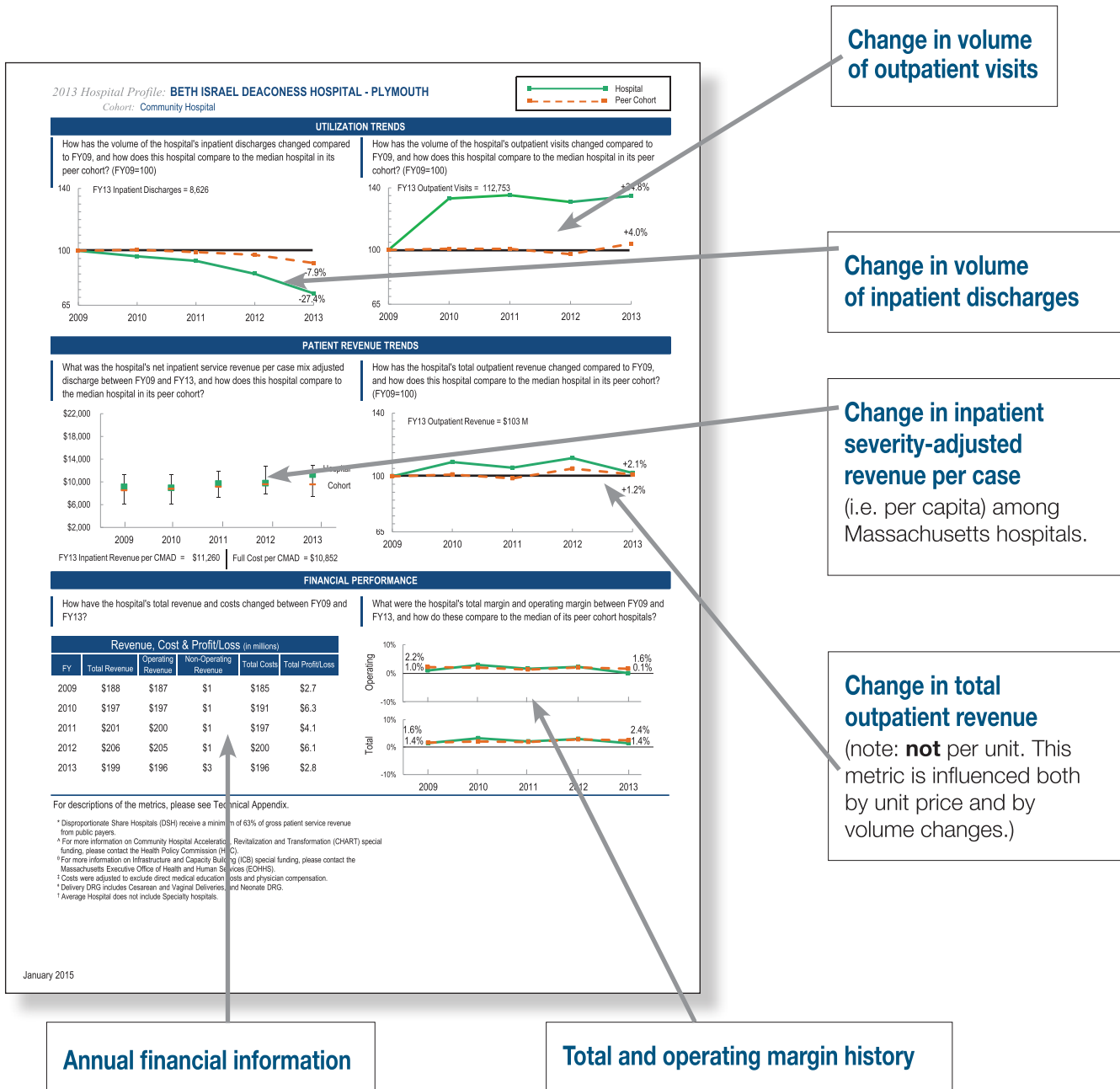
This sheet provides a brief introduction to the metrics on the hospital profiles. Definitions and notes on all metrics are available in the Technical Appendix.



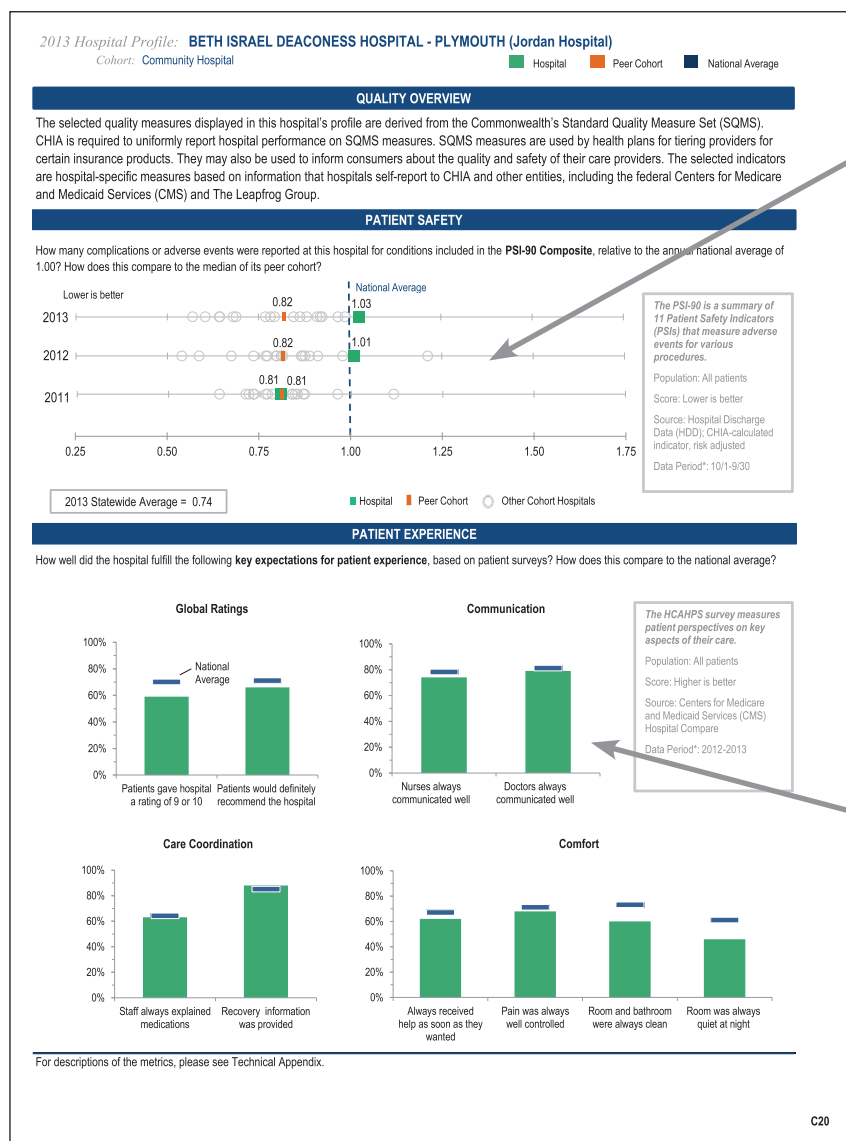
How to Read Acute Hospital Profiles – FY13

Each of the first four graphs compares trends at the featured hospital (in green) to the trend among the peer cohort hospitals (in orange). Both trends are anchored at 100 to emphasize recent changes. The labeled points are cumulative over the time period.

Absolute differences between the hospital and the cohort cannot be read off these graphs, but are available in the data supplement to these reports.



How to Read Acute Hospital Profiles (Quality Metrics) – FY13



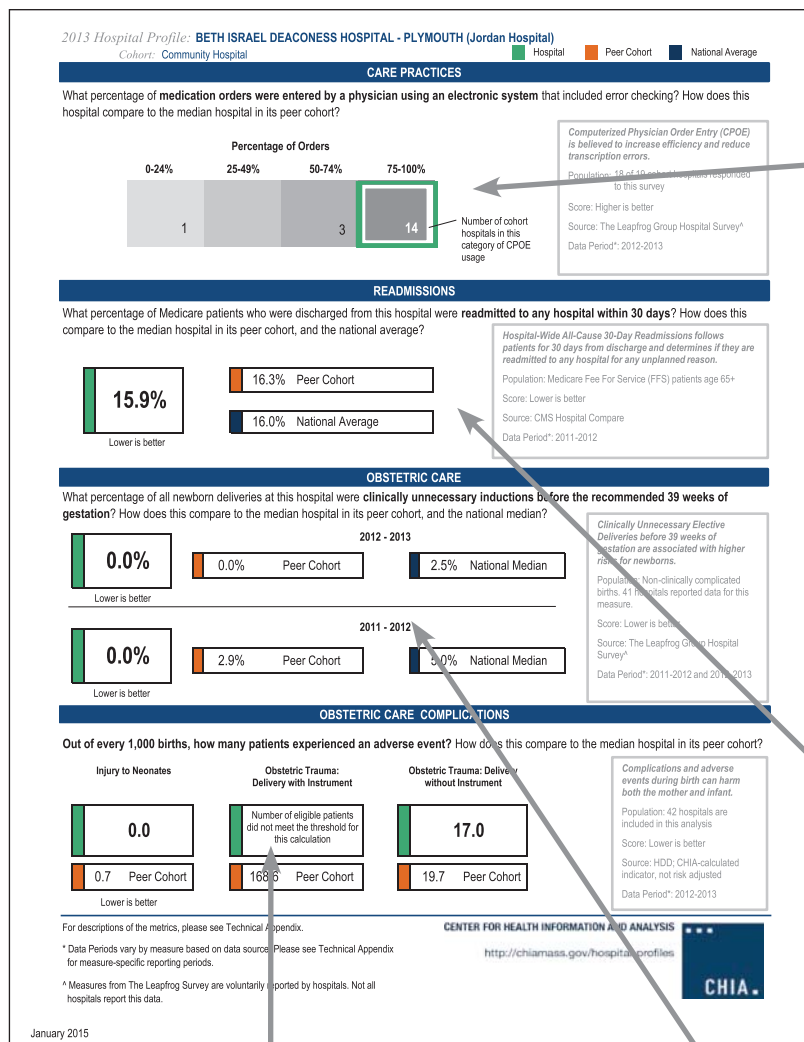
Patient Safety

This section displays the hospital's PSI-90 Composite score (in green), a measure of complications during procedures. It is risk-adjusted, and calculated such that the national average is always 1.0. The peer cohort median is displayed (orange line), as well as individual peer cohort hospitals (open circles) for comparison to the hospital. *Lower scores are better.*

Patient Experience

Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, which measures patient perspectives on various aspects of their care. *Higher scores are better.*

How to Read Acute Hospital Profiles (Quality Metrics) – FY13



Care Practices

This measure assesses the proportion of a hospital's total medical orders that were entered via an electronic Computerized Physician Order Entry (CPOE) system that included error checking. Scores are measured in quartiles based on the percentage of orders that were entered using an electronic system. If applicable, the hospital's score is circled in green, while the number of cohort hospitals that fell in each category are depicted within the boxes. A higher quartile is better.

Readmissions

This measure is designed to follow patients for 30 days from discharge and determine if they are admitted to a hospital during this period. The measure is risk-standardized based on the clinical comorbidities of each patient. The hospital's readmission rate in 2011-2012 and 2012-2013 is compared to the peer cohort median and national average. A lower score is better.

Obstetric Care Complications

This measure assesses adverse obstetric events at the hospital, and is expressed as the number of adverse events out of every 1,000 births. The first score (left) measures injury to the baby, while the second two scores measure trauma to the mother. The hospital's score is compared to the peer cohort median. Lower scores are better.

Obstetric Care

Deliveries before 39 weeks gestation are associated with higher risks for the newborn and greater cost. This measure looks at what proportion of deliveries were completed prior to 39 weeks without medical necessity. The hospital's early elective delivery rate is compared to the peer cohort median and national average. A lower score is better.

Changes from FY12 Acute Hospital Profiles

What changed from Acute Hospital Profiles – Data through Fiscal Year 2012

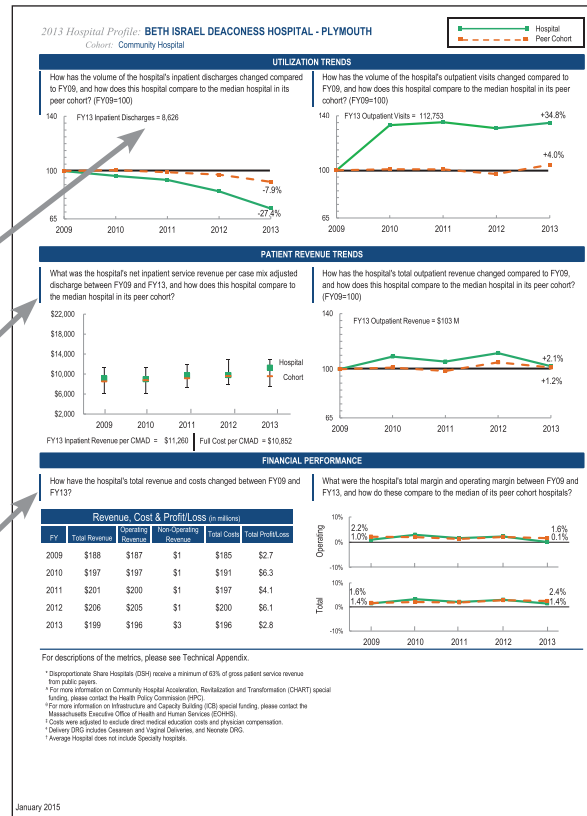
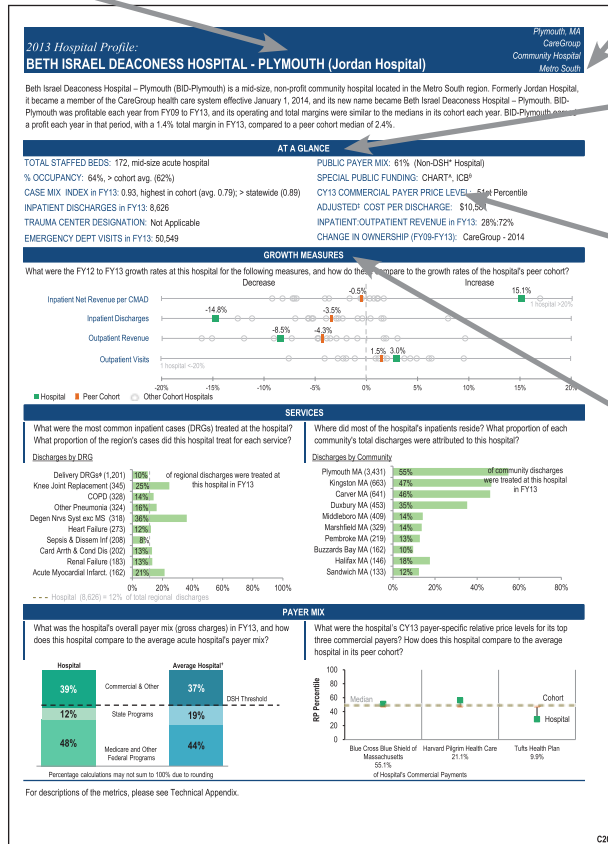
Hospital Name reflects current hospital name as of January 2015. Name in parenthesis (if applicable) indicates hospital name as of FY13.

Regions are rolled up into 8 larger regions from 16 regions in the *Data through FY12 Profiles*.

New At a Glance Measures include Inpatient Discharges in FY13 and Change in Ownership (FY09-FY13).

Disproportionate Share Hospital (DSH) status was updated for FY13 qualifications, resulting in a cohort designation change for some hospitals.

New Growth Measures section shows 1-year growth rates (FY12-FY13) of revenue and utilization trend metrics. Hospital growth measures are compared to cohort.



FY13 Values are noted on all trend measures.

New Revenue Trends Metrics replace cost trends metrics on *Data through FY12 Profile*.

Financial Performance Metrics now include operating and non-operating revenue, and operating margin.

Methodology:

- Cohort and 'all other hospital' comparisons use medians (instead of means) of growth rates for utilization, revenue, and financial performance.¹

¹ Payer mix comparison (average) and cohort financial performance (median) calculations did not change from *Data through FY12 Profile*.

2013 Hospital Profile:

BETH ISRAEL DEACONESS MEDICAL CENTER

Boston, MA
CareGroup
Academic Medical Center
Metro Boston

Beth Israel Deaconess Medical Center (BIDMC) is a large, non-profit academic medical center (AMC) located in the Metro Boston region. It is one of eight organ transplant centers in Massachusetts, and is a member of the CareGroup health care system. Though it only accounted for 12% of the region's discharges in FY13, it treated 20% of inpatient chemotherapy cases. It earned a profit each year from FY09 to FY13, with a 7.1% total margin in FY13, while the median total margin in its peer cohort was 4.6% in FY13.

AT A GLANCE

TOTAL STAFFED BEDS: 511, 6th largest acute hospital

% OCCUPANCY: 100%, highest in cohort (avg. 85%)

CASE MIX INDEX in FY13: 1.24, < cohort avg. (1.32); > statewide (0.89)

INPATIENT DISCHARGES in FY13: 35,522

TRAUMA CENTER DESIGNATION: Adult: Level 1

EMERGENCY DEPT VISITS in FY13: 44,345

PUBLIC PAYER MIX: 56% (Non-DSH* Hospital)

SPECIAL PUBLIC FUNDING: ICB⁹

CY13 COMMERCIAL PAYER PRICE LEVEL: 72nd Percentile

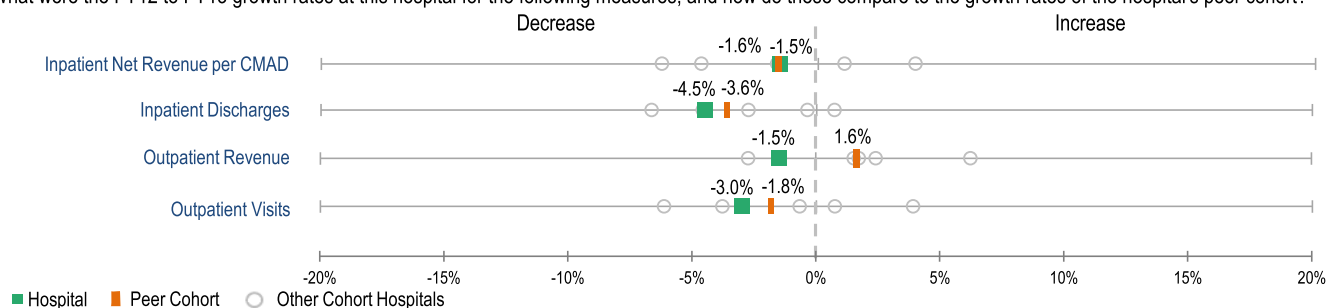
ADJUSTED[‡] COST PER DISCHARGE: \$9,965

INPATIENT:OUTPATIENT REVENUE in FY13: 42%:58%

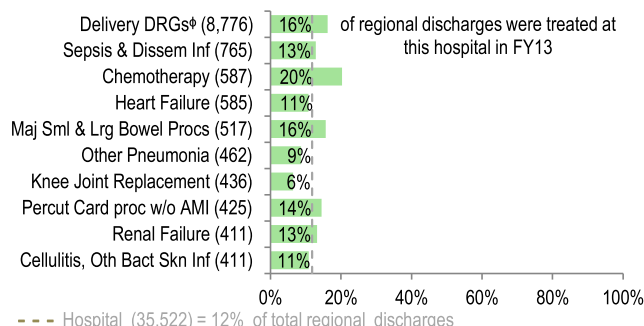
CHANGE IN OWNERSHIP (FY09-FY13): Not Applicable

GROWTH MEASURES

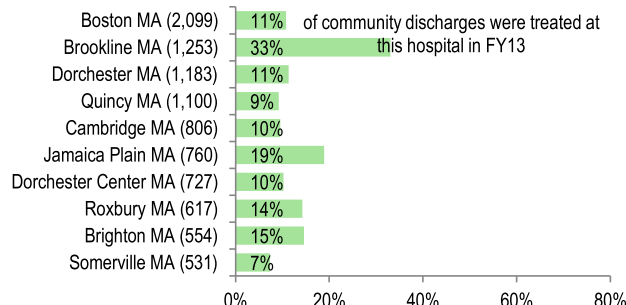
What were the FY12 to FY13 growth rates at this hospital for the following measures, and how do these compare to the growth rates of the hospital's peer cohort?

**SERVICES**

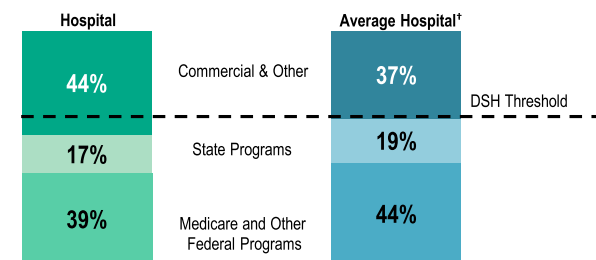
What were the most common inpatient cases (DRGs) treated at the hospital?
What proportion of the region's cases did this hospital treat for each service?

Discharges by DRG

Where did most of the hospital's inpatients reside? What proportion of each community's total discharges were attributed to this hospital?

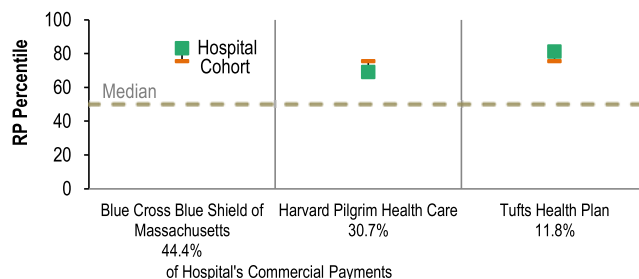
Discharges by Community**PAYER MIX**

What was the hospital's overall payer mix (gross charges) in FY13, and how does this hospital compare to the average acute hospital's payer mix?



Percentage calculations may not sum to 100% due to rounding

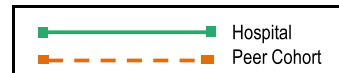
What were the hospital's CY13 payer-specific relative price levels for its top three commercial payers? How does this hospital compare to the average hospital in its peer cohort?



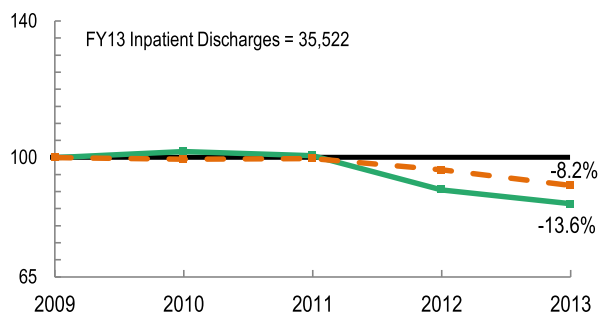
For descriptions of the metrics, please see Technical Appendix.

2013 Hospital Profile: **BETH ISRAEL DEACONESS MEDICAL CENTER**

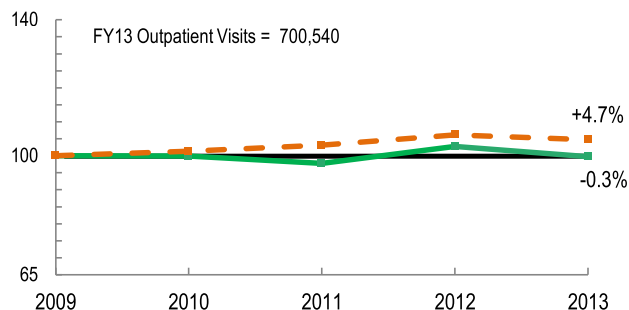
Cohort: Academic Medical Center

**UTILIZATION TRENDS**

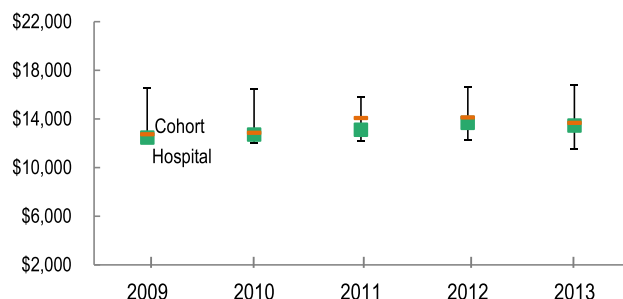
How has the volume of the hospital's inpatient discharges changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)



How has the volume of the hospital's outpatient visits changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

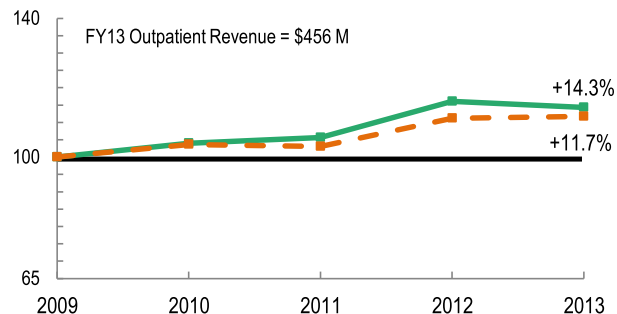
**PATIENT REVENUE TRENDS**

What was the hospital's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this hospital compare to the median hospital in its peer cohort?



FY13 Inpatient Revenue per CMAD = \$13,444 | Full Cost per CMAD = \$11,177

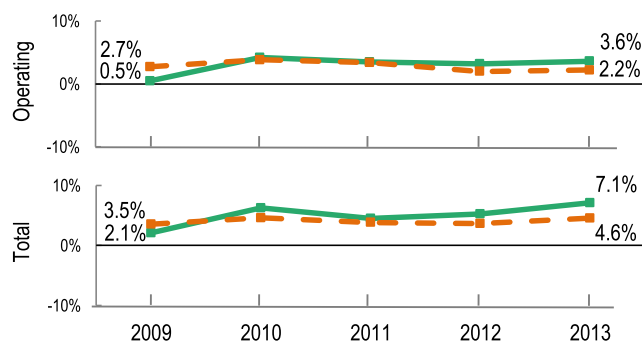
How has the hospital's total outpatient revenue changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

**FINANCIAL PERFORMANCE**

How have the hospital's total revenue and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$1,257	\$1,237	\$20	\$1,231	\$26.1
2010	\$1,346	\$1,318	\$28	\$1,262	\$84.2
2011	\$1,382	\$1,368	\$14	\$1,320	\$62.3
2012	\$1,410	\$1,380	\$29	\$1,336	\$74.0
2013	\$1,410	\$1,360	\$49	\$1,309	\$100.2

What were the hospital's total margin and operating margin between FY09 and FY13, and how do these compare to the median of its peer cohort hospitals?



For descriptions of the metrics, please see Technical Appendix.

* Disproportionate Share Hospitals (DSH) receive a minimum of 63% of gross patient service revenue from public payers.

† For more information on Infrastructure and Capacity Building (ICB) special funding, please contact the Massachusetts Executive Office of Health and Human Services (EOHHS).

‡ Costs were adjusted to exclude direct medical education costs and physician compensation.

§ Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

† Average Hospital does not include Specialty hospitals.

2013 Hospital Profile: **BETH ISRAEL DEACONESS MEDICAL CENTER**

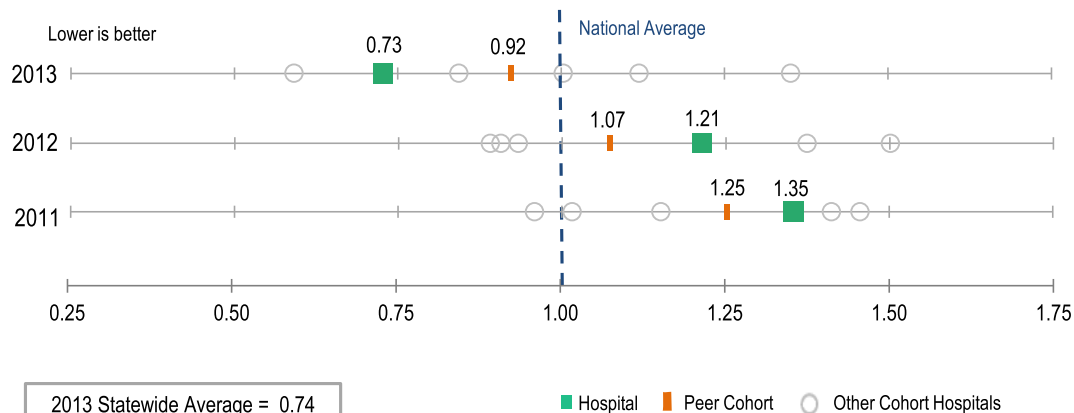
Cohort: Academic Medical Center

■ Hospital
■ Peer Cohort
■ National Average
QUALITY OVERVIEW

The selected quality measures displayed in this hospital's profile are derived from the Commonwealth's Standard Quality Measure Set (SQMS). CHIA is required to uniformly report hospital performance on SQMS measures. SQMS measures are used by health plans for tiering providers for certain insurance products. They may also be used to inform consumers about the quality and safety of their care providers. The selected indicators are hospital-specific measures based on information that hospitals self-report to CHIA and other entities, including the federal Centers for Medicare and Medicaid Services (CMS) and The Leapfrog Group.

PATIENT SAFETY

How many complications or adverse events were reported at this hospital for conditions included in the **PSI-90 Composite**, relative to the annual national average of 1.00? How does this compare to the median of its peer cohort?



The PSI-90 is a summary of 11 Patient Safety Indicators (PSIs) that measure adverse events for various procedures.

Population: All patients

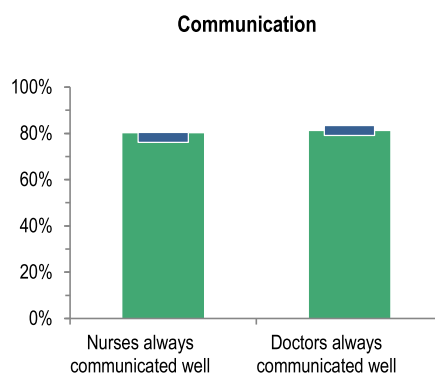
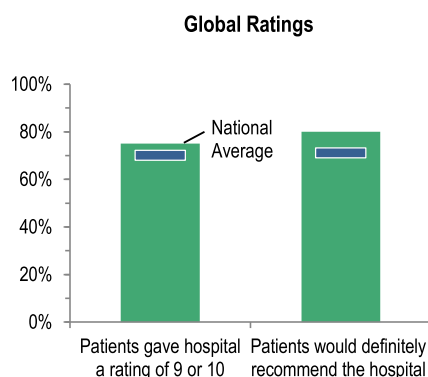
Score: Lower is better

Source: Hospital Discharge Data (HDD); CHIA-calculated indicator, risk adjusted

Data Period*: 10/1-9/30

PATIENT EXPERIENCE

How well did the hospital fulfill the following **key expectations for patient experience**, based on patient surveys? How does this compare to the national average?



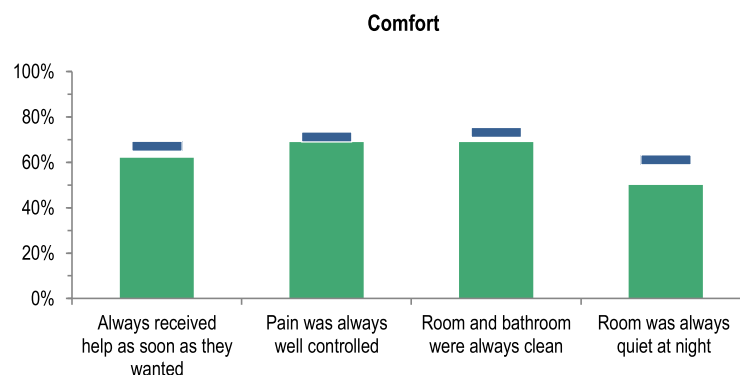
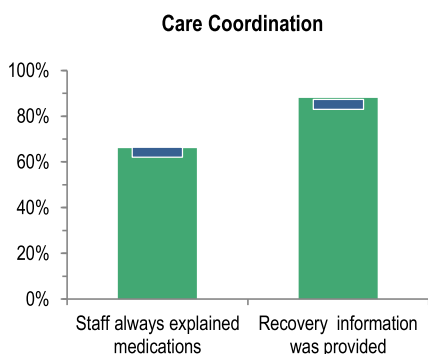
The HCAHPS survey measures patient perspectives on key aspects of their care.

Population: All patients

Score: Higher is better

Source: Centers for Medicare and Medicaid Services (CMS) Hospital Compare

Data Period*: 2012-2013



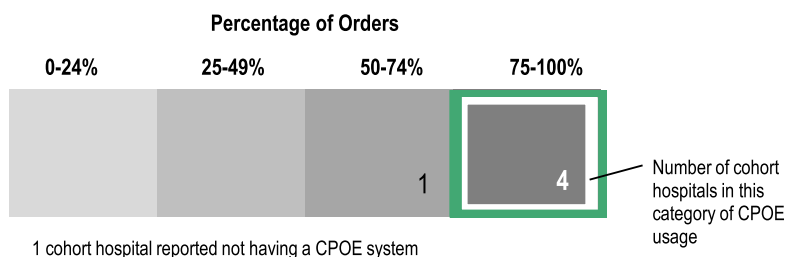
For descriptions of the metrics, please see Technical Appendix.

2013 Hospital Profile: **BETH ISRAEL DEACONESS MEDICAL CENTER**

Cohort: Academic Medical Center

■ Hospital
■ Peer Cohort
■ National Average
CARE PRACTICES

What percentage of **medication orders** were entered by a physician using an electronic system that included error checking? How does this hospital compare to the median hospital in its peer cohort?



Computerized Physician Order Entry (CPOE) is believed to increase efficiency and reduce transcription errors.

Population: 6 of 6 cohort hospitals responded to this survey

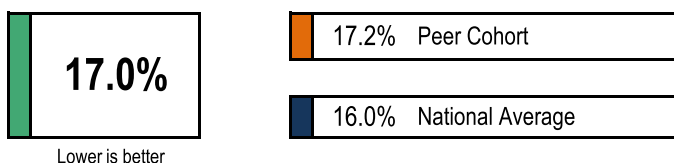
Score: Higher is better

Source: The Leapfrog Group Hospital Survey[^]

Data Period*: 2012-2013

READMISSIONS

What percentage of Medicare patients who were discharged from this hospital were **readmitted to any hospital within 30 days**? How does this compare to the median hospital in its peer cohort, and the national average?



Hospital-Wide All-Cause 30-Day Readmissions follows patients for 30 days from discharge and determines if they are readmitted to any hospital for any unplanned reason.

Population: Medicare Fee For Service (FFS) patients age 65+

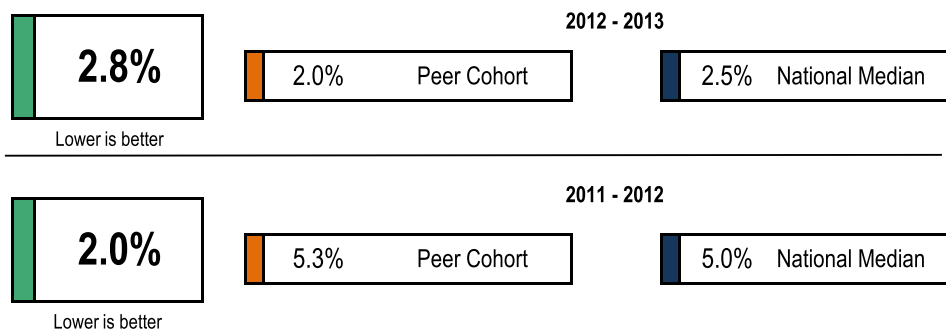
Score: Lower is better

Source: CMS Hospital Compare

Data Period*: 2011-2012

OBSTETRIC CARE

What percentage of all newborn deliveries at this hospital were **clinically unnecessary inductions before the recommended 39 weeks of gestation**? How does this compare to the median hospital in its peer cohort, and the national median?



Clinically Unnecessary Elective Deliveries before 39 weeks of gestation are associated with higher risks for newborns.

Population: Non-clinically complicated births. 41 hospitals reported data for this measure.

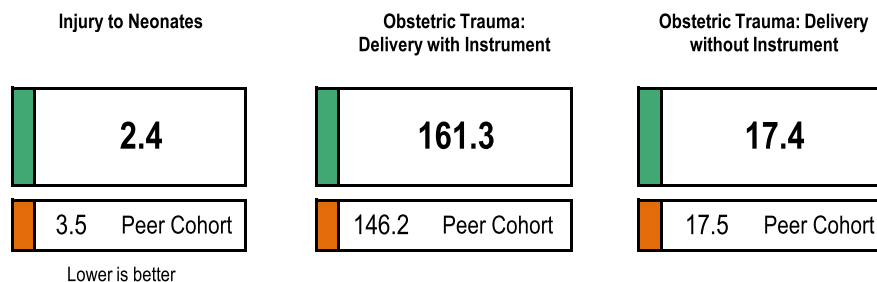
Score: Lower is better

Source: The Leapfrog Group Hospital Survey[^]

Data Period*: 2011-2012 and 2012-2013

OBSTETRIC CARE COMPLICATIONS

Out of every 1,000 births, how many patients experienced an adverse event? How does this compare to the median hospital in its peer cohort?



Complications and adverse events during birth can harm both the mother and infant.

Population: 42 hospitals are included in this analysis

Score: Lower is better

Source: HDD; CHIA-calculated indicator, not risk adjusted

Data Period*: 2012-2013

For descriptions of the metrics, please see Technical Appendix.

* Data Periods vary by measure based on data source. Please see Technical Appendix for measure-specific reporting periods.

[^] Measures from The Leapfrog Survey are voluntarily reported by hospitals. Not all hospitals report this data.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>



Boston, MA

2013 Hospital Profile:

BOSTON MEDICAL CENTER

Academic Medical Center

Metro Boston

Boston Medical Center (BMC) is a large non-profit academic medical center (AMC) located in the Metro Boston region. It is the only AMC that is also a Disproportionate Share Hospital (DSH). BMC is a teaching hospital of Boston University School of Medicine. It is the state's seventh largest hospital, and one of eight organ transplant centers in Massachusetts. BMC treated 41% of all Sickle Cell Anemia crises cases in Metro Boston, though it was responsible for only 9% of total regional discharges. BMC was profitable in FY12 and FY13, though its total margin and operating margins were consistently lower than the median performance of its peer cohort.

AT A GLANCE

TOTAL STAFFED BEDS: 478, 7th largest acute hospital

% OCCUPANCY: 70%, lowest in cohort (avg. 85%)

CASE MIX INDEX in FY13: 1.12, lowest in cohort (avg. 1.32); > statewide (0.89)

INPATIENT DISCHARGES in FY13: 26,007

TRAUMA CENTER DESIGNATION: Adult: Level 1, Pedi: Level 2

EMERGENCY DEPT VISITS in FY13: 129,782

PUBLIC PAYER MIX: 77% (DSH* Hospital)

SPECIAL PUBLIC FUNDING: DSTIⁿ

CY13 COMMERCIAL PAYER PRICE LEVEL: 57th Percentile

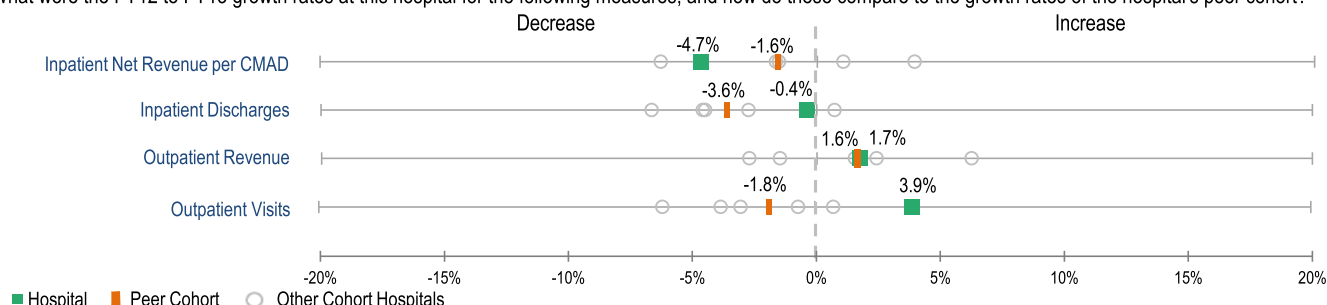
ADJUSTED[‡] COST PER DISCHARGE: \$12,761

INPATIENT:OUTPATIENT REVENUE in FY13: 33%:67%

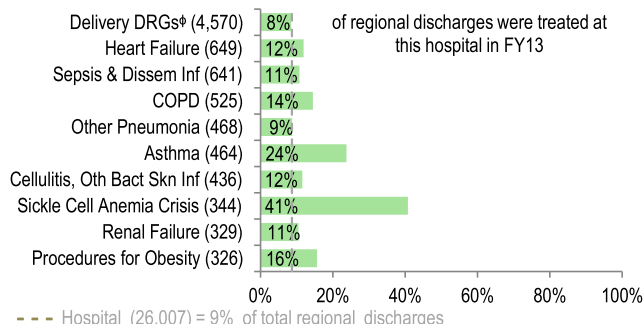
CHANGE IN OWNERSHIP (FY09-FY13): Not Applicable

GROWTH MEASURES

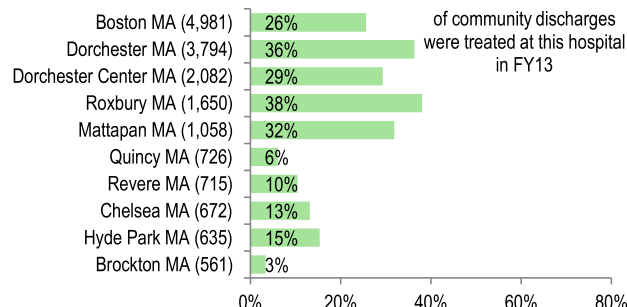
What were the FY12 to FY13 growth rates at this hospital for the following measures, and how do these compare to the growth rates of the hospital's peer cohort?

**SERVICES**

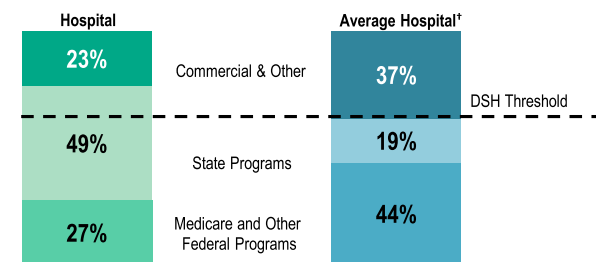
What were the most common inpatient cases (DRGs) treated at the hospital? What proportion of the region's cases did this hospital treat for each service?

Discharges by DRG

Where did most of the hospital's inpatients reside? What proportion of each community's total discharges were attributed to this hospital?

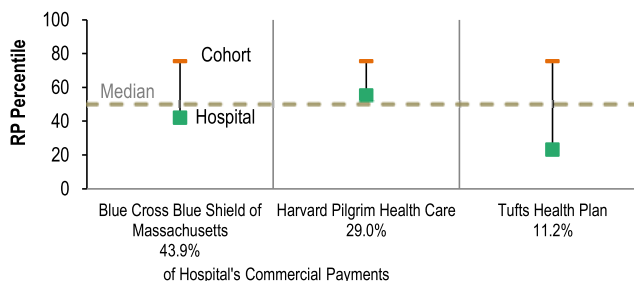
Discharges by Community**PAYER MIX**

What was the hospital's overall payer mix (gross charges) in FY13, and how does this hospital compare to the average acute hospital's payer mix?



Percentage calculations may not sum to 100% due to rounding

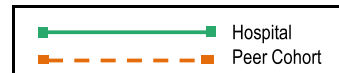
What were the hospital's CY13 payer-specific relative price levels for its top three commercial payers? How does this hospital compare to the average hospital in its peer cohort?



For descriptions of the metrics, please see Technical Appendix.

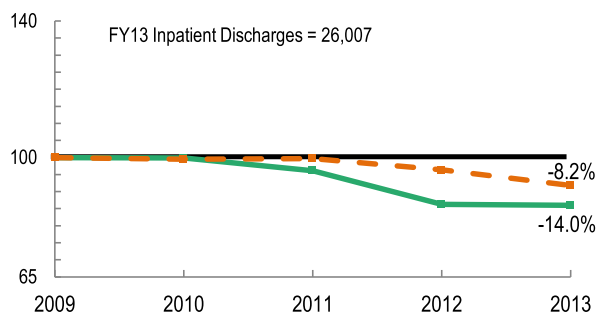
2013 Hospital Profile: **BOSTON MEDICAL CENTER**

Cohort: Academic Medical Center

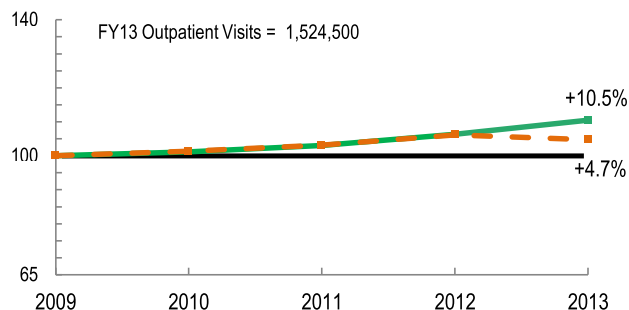


UTILIZATION TRENDS

How has the volume of the hospital's inpatient discharges changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

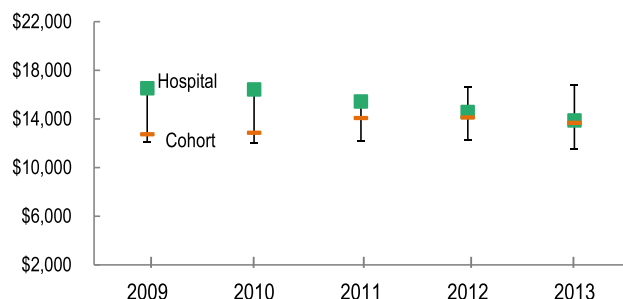


How has the volume of the hospital's outpatient visits changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)



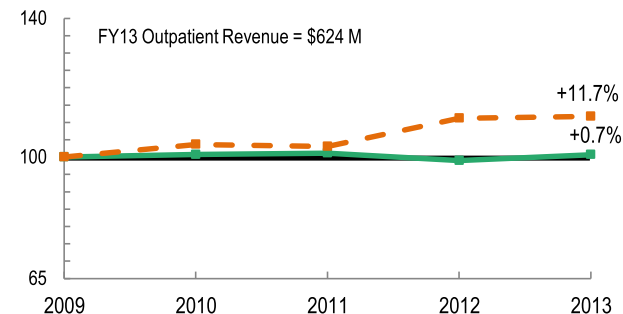
PATIENT REVENUE TRENDS

What was the hospital's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this hospital compare to the median hospital in its peer cohort?



FY13 Inpatient Revenue per CMAD = \$13,865 | Full Cost per CMAD = \$16,080

How has the hospital's total outpatient revenue changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

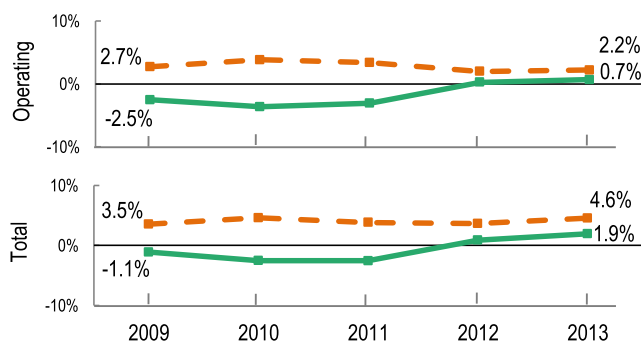


FINANCIAL PERFORMANCE

How have the hospital's total revenue and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$1,005	\$991	\$14	\$1,016	(\$11.3)
2010	\$1,017	\$1,006	\$11	\$1,043	(\$25.7)
2011	\$985	\$980	\$5	\$1,010	(\$25.1)
2012	\$1,017	\$1,011	\$6	\$1,008	\$8.8
2013	\$1,029	\$1,016	\$13	\$1,009	\$20.0

What were the hospital's total margin and operating margin between FY09 and FY13, and how do these compare to the median of its peer cohort hospitals?



For descriptions of the metrics, please see Technical Appendix.

* Disproportionate Share Hospitals (DSH) receive a minimum of 63% of gross patient service revenue from public payers.

† For more information on Delivery System Transformation Initiative (DSTI) special funding, please contact the Massachusetts Executive Office of Health and Human Services (EOHHS).

‡ Costs were adjusted to exclude direct medical education costs and physician compensation.

§ Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

† Average Hospital does not include Specialty hospitals.

2013 Hospital Profile: **BOSTON MEDICAL CENTER**

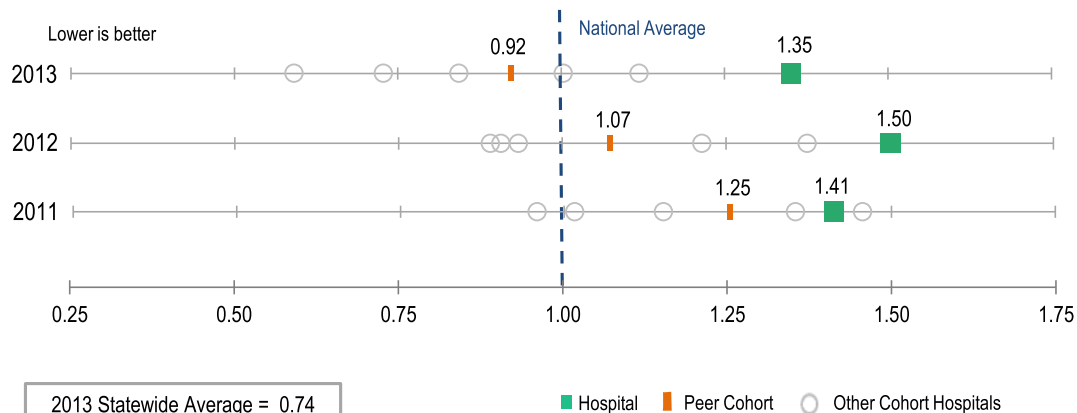
Cohort: Academic Medical Center

■ Hospital
■ Peer Cohort
■ National Average
QUALITY OVERVIEW

The selected quality measures displayed in this hospital's profile are derived from the Commonwealth's Standard Quality Measure Set (SQMS). CHIA is required to uniformly report hospital performance on SQMS measures. SQMS measures are used by health plans for tiering providers for certain insurance products. They may also be used to inform consumers about the quality and safety of their care providers. The selected indicators are hospital-specific measures based on information that hospitals self-report to CHIA and other entities, including the federal Centers for Medicare and Medicaid Services (CMS) and The Leapfrog Group.

PATIENT SAFETY

How many complications or adverse events were reported at this hospital for conditions included in the **PSI-90 Composite**, relative to the annual national average of 1.00? How does this compare to the median of its peer cohort?



The PSI-90 is a summary of 11 Patient Safety Indicators (PSIs) that measure adverse events for various procedures.

Population: All patients

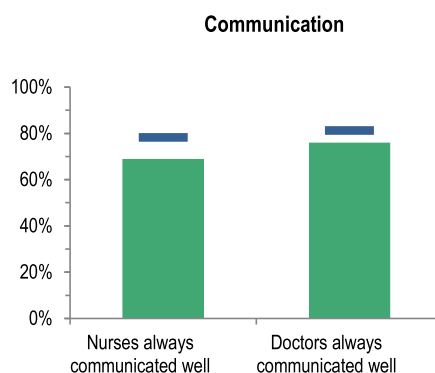
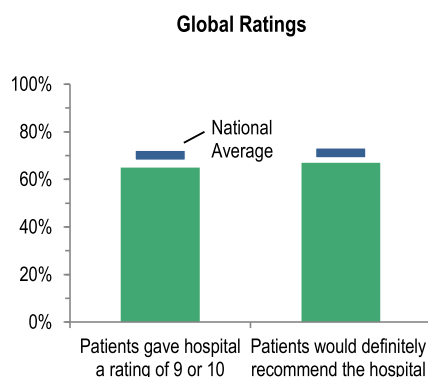
Score: Lower is better

Source: Hospital Discharge Data (HDD); CHIA-calculated indicator, risk adjusted

Data Period*: 10/1-9/30

PATIENT EXPERIENCE

How well did the hospital fulfill the following **key expectations for patient experience**, based on patient surveys? How does this compare to the national average?



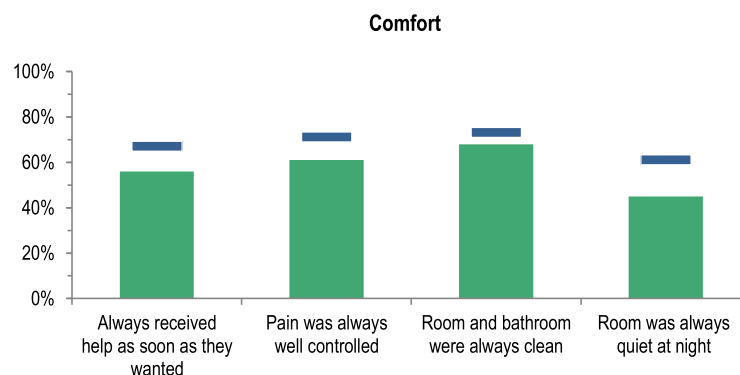
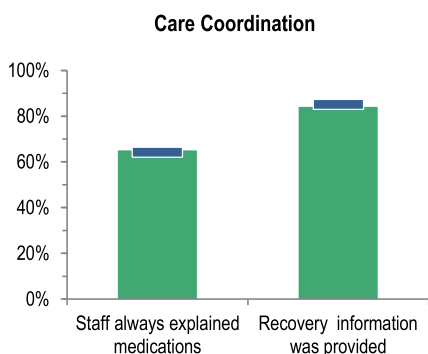
The HCAHPS survey measures patient perspectives on key aspects of their care.

Population: All patients

Score: Higher is better

Source: Centers for Medicare and Medicaid Services (CMS) Hospital Compare

Data Period*: 2012-2013



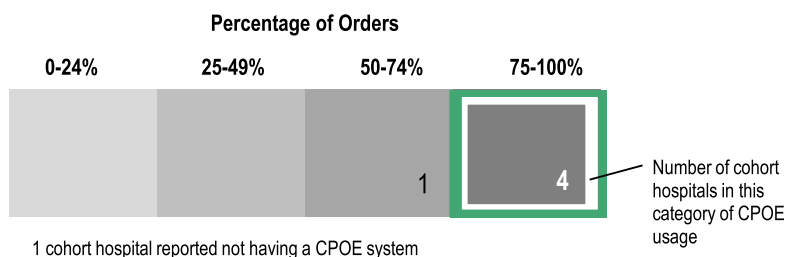
For descriptions of the metrics, please see Technical Appendix.

2013 Hospital Profile: **BOSTON MEDICAL CENTER**

Cohort: Academic Medical Center

■ Hospital
■ Peer Cohort
■ National Average
CARE PRACTICES

What percentage of **medication orders** were entered by a physician using an electronic system that included error checking? How does this hospital compare to the median hospital in its peer cohort?



Computerized Physician Order Entry (CPOE) is believed to increase efficiency and reduce transcription errors.

Population: 6 of 6 cohort hospitals responded to this survey

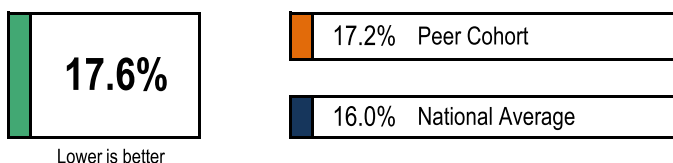
Score: Higher is better

Source: The Leapfrog Group Hospital Survey[^]

Data Period*: 2012-2013

READMISSIONS

What percentage of Medicare patients who were discharged from this hospital were **readmitted to any hospital within 30 days**? How does this compare to the median hospital in its peer cohort, and the national median?



Hospital-Wide All-Cause 30-Day Readmissions follows patients for 30 days from discharge and determines if they are readmitted to any hospital for any unplanned reason.

Population: Medicare Fee For Service (FFS) patients age 65+

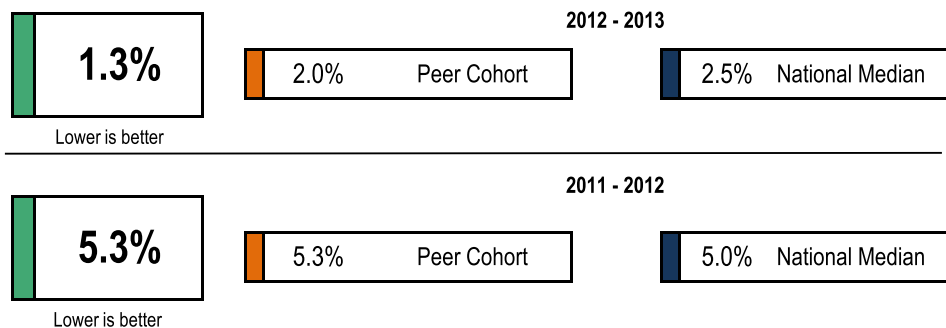
Score: Lower is better

Source: CMS Hospital Compare

Data Period*: 2011-2012

OBSTETRIC CARE

What percentage of all newborn deliveries at this hospital were **clinically unnecessary inductions before the recommended 39 weeks of gestation**? How does this compare to the median hospital in its peer cohort, and the national median?



Clinically Unnecessary Elective Deliveries before 39 weeks of gestation are associated with higher risks for newborns.

Population: Non-clinically complicated births. 41 hospitals reported data for this measure.

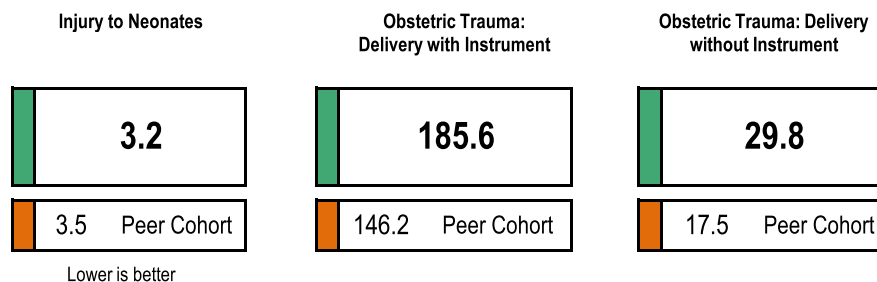
Score: Lower is better

Source: The Leapfrog Group Hospital Survey[^]

Data Period*: 2011-2012 and 2012-2013

OBSTETRIC CARE COMPLICATIONS

Out of every 1,000 births, how many patients experienced an adverse event? How does this compare to the median hospital in its peer cohort?



Complications and adverse events during birth can harm both the mother and infant.

Population: 42 hospitals are included in this analysis

Score: Lower is better

Source: HDD; CHIA-calculated indicator, not risk adjusted

Data Period*: 2012-2013

For descriptions of the metrics, please see Technical Appendix.

* Data Periods vary by measure based on data source. Please see Technical Appendix for measure-specific reporting periods.

[^] Measures from The Leapfrog Survey are voluntarily reported by hospitals. Not all hospitals report this data.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>



2013 Hospital Profile:

BRIGHAM AND WOMEN'S HOSPITAL

Boston, MA
Partners HealthCare System
Academic Medical Center
Metro Boston

Brigham and Women's Hospital is a non-profit academic medical center (AMC) located in the Metro Boston region. Within Massachusetts, it is the second largest hospital, has the highest number of births at any hospital, and is designated as one of eight organ transplant centers in the state. It is a member of Partners HealthCare System. Its operating and total margins remained fairly steady from FY09 to FY13, with a 5.5% total margin in FY13, slightly higher than its peer cohort median total margin of 4.6% in FY13.

AT A GLANCE

TOTAL STAFFED BEDS: 859, 2nd largest acute hospital

% OCCUPANCY: 85%, = cohort avg. (85%)

CASE MIX INDEX in FY13: 1.40, > cohort avg. (1.32); > statewide (0.89)

INPATIENT DISCHARGES in FY13: 49,160

TRAUMA CENTER DESIGNATION: Adult: Level 1

EMERGENCY DEPT VISITS in FY13: 59,921

PUBLIC PAYER MIX: 51% (Non-DSH* Hospital)

SPECIAL PUBLIC FUNDING: Not Applicable

CY13 COMMERCIAL PAYER PRICE LEVEL: 91st Percentile

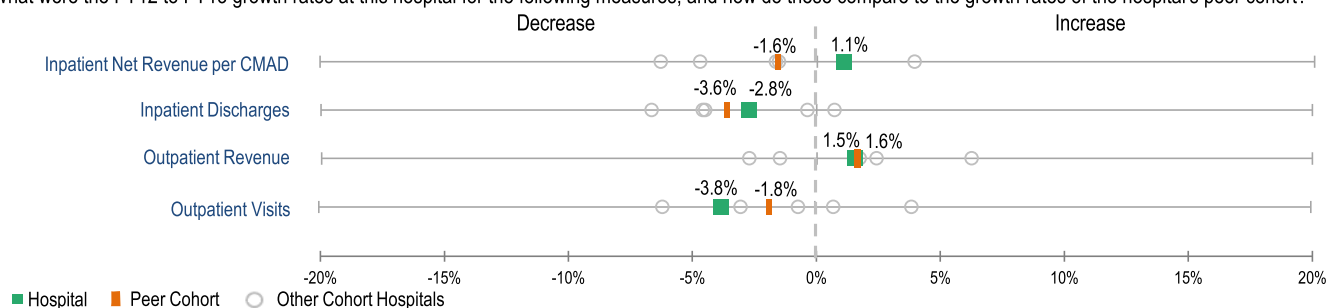
ADJUSTED[‡] COST PER DISCHARGE: \$14,410

INPATIENT:OUTPATIENT REVENUE in FY13: 62%:38%

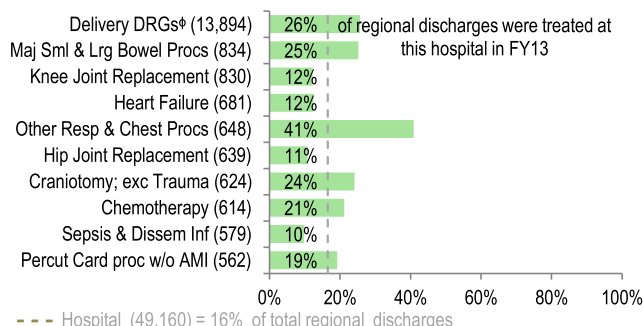
CHANGE IN OWNERSHIP (FY09-FY13): Not Applicable

GROWTH MEASURES

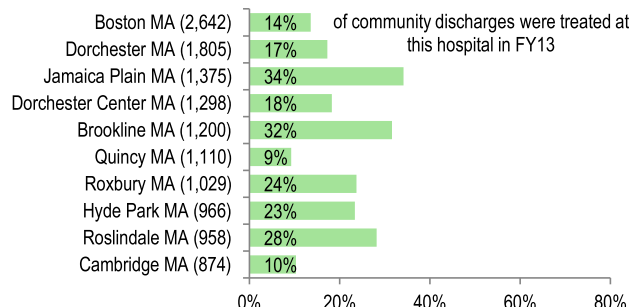
What were the FY12 to FY13 growth rates at this hospital for the following measures, and how do these compare to the growth rates of the hospital's peer cohort?

**SERVICES**

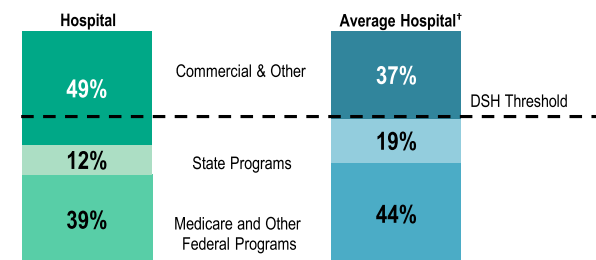
What were the most common inpatient cases (DRGs) treated at the hospital? What proportion of the region's cases did this hospital treat for each service?

Discharges by DRG

Where did most of the hospital's inpatients reside? What proportion of each community's total discharges were attributed to this hospital?

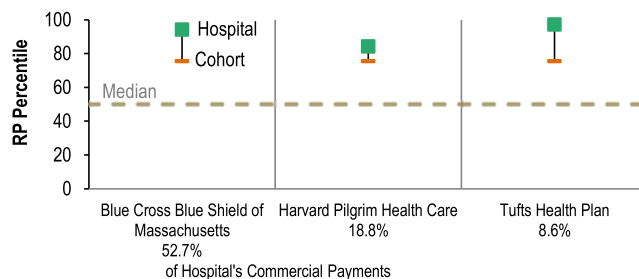
Discharges by Community**PAYER MIX**

What was the hospital's overall payer mix (gross charges) in FY13, and how does this hospital compare to the average acute hospital's payer mix?



Percentage calculations may not sum to 100% due to rounding

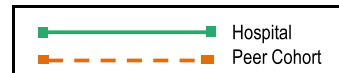
What were the hospital's CY13 payer-specific relative price levels for its top three commercial payers? How does this hospital compare to the average hospital in its peer cohort?



For descriptions of the metrics, please see Technical Appendix.

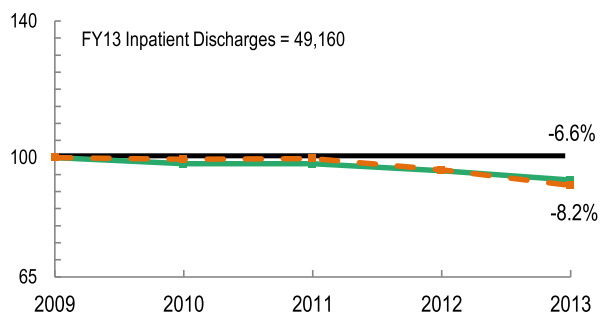
2013 Hospital Profile: **BRIGHAM AND WOMEN'S HOSPITAL**

Cohort: Academic Medical Center

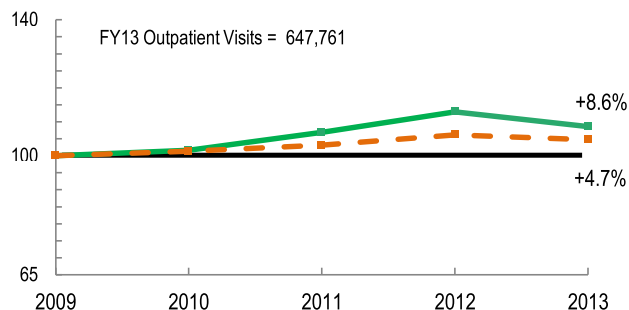


UTILIZATION TRENDS

How has the volume of the hospital's inpatient discharges changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

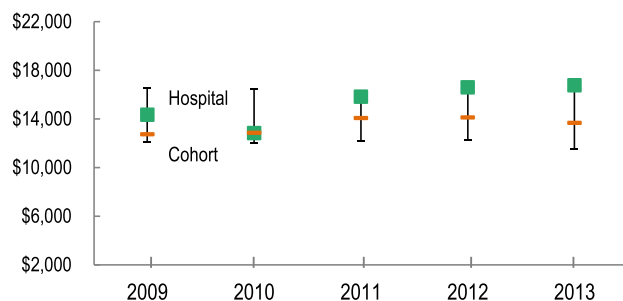


How has the volume of the hospital's outpatient visits changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)



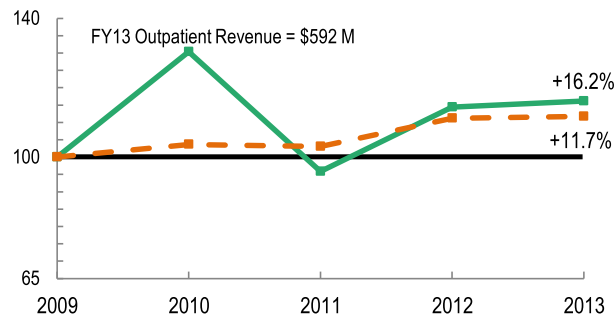
PATIENT REVENUE TRENDS

What was the hospital's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this hospital compare to the median hospital in its peer cohort?



FY13 Inpatient Revenue per CMAD = \$16,762 | Full Cost per CMAD = \$15,309

How has the hospital's total outpatient revenue changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

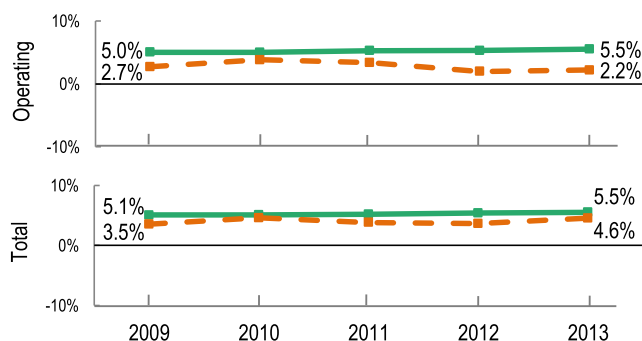


FINANCIAL PERFORMANCE

How have the hospital's total revenue and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)					
FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	\$2,085	\$2,085	\$1	\$1,980	\$105.5
2010	\$2,212	\$2,210	\$1	\$2,100	\$112.1
2011	\$2,353	\$2,356	(\$3)	\$2,231	\$122.0
2012	\$2,457	\$2,455	\$2	\$2,325	\$132.2
2013	\$2,516	\$2,517	(\$0)	\$2,377	\$139.0

What were the hospital's total margin and operating margin between FY09 and FY13, and how do these compare to the median of its peer cohort hospitals?



For descriptions of the metrics, please see Technical Appendix.

* Disproportionate Share Hospitals (DSH) receive a minimum of 63% of gross patient service revenue from public payers.

† Costs were adjusted to exclude direct medical education costs and physician compensation.

* Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.

† Average Hospital does not include Specialty hospitals.

2013 Hospital Profile: **BRIGHAM AND WOMEN'S HOSPITAL**

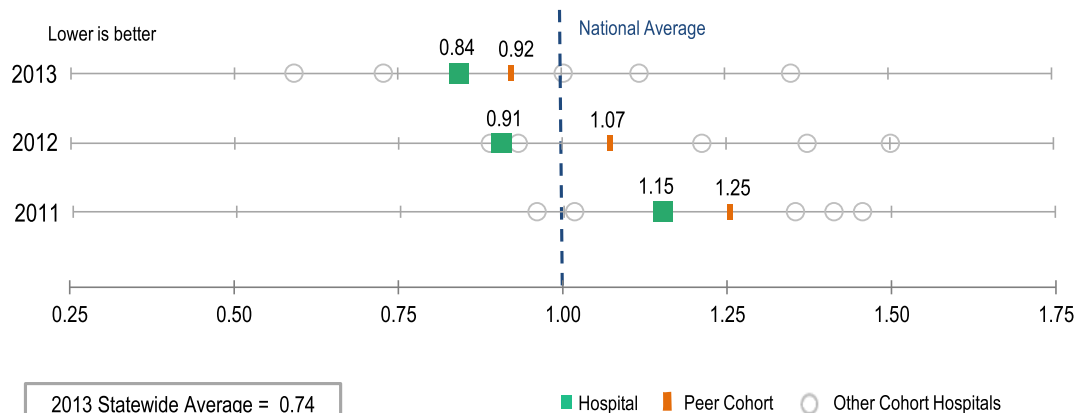
Cohort: Academic Medical Center

■ Hospital
■ Peer Cohort
■ National Average
QUALITY OVERVIEW

The selected quality measures displayed in this hospital's profile are derived from the Commonwealth's Standard Quality Measure Set (SQMS). CHIA is required to uniformly report hospital performance on SQMS measures. SQMS measures are used by health plans for tiering providers for certain insurance products. They may also be used to inform consumers about the quality and safety of their care providers. The selected indicators are hospital-specific measures based on information that hospitals self-report to CHIA and other entities, including the federal Centers for Medicare and Medicaid Services (CMS) and The Leapfrog Group.

PATIENT SAFETY

How many complications or adverse events were reported at this hospital for conditions included in the **PSI-90 Composite**, relative to the annual national average of 1.00? How does this compare to the median of its peer cohort?



The PSI-90 is a summary of 11 Patient Safety Indicators (PSIs) that measure adverse events for various procedures.

Population: All patients

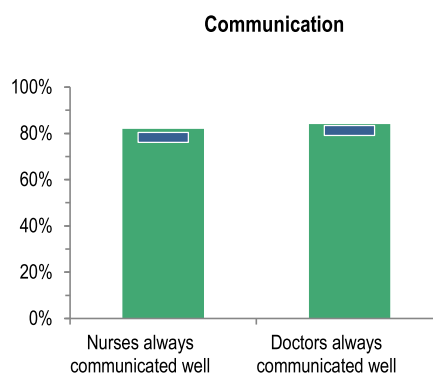
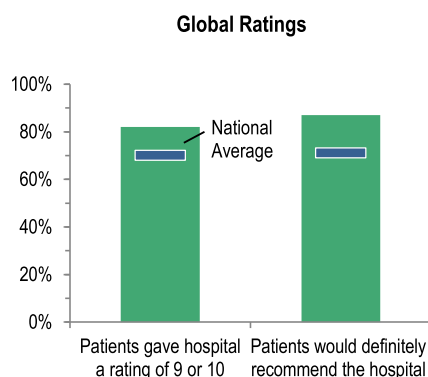
Score: Lower is better

Source: Hospital Discharge Data (HDD); CHIA-calculated indicator, risk adjusted

Data Period*: 10/1-9/30

PATIENT EXPERIENCE

How well did the hospital fulfill the following **key expectations for patient experience**, based on patient surveys? How does this compare to the national average?



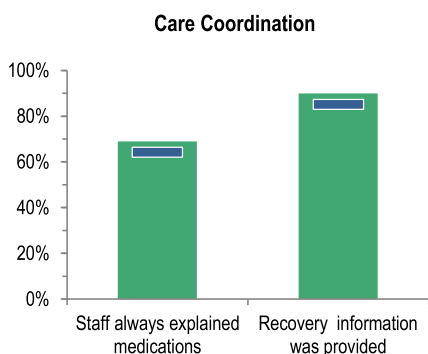
The HCAHPS survey measures patient perspectives on key aspects of their care.

Population: All patients

Score: Higher is better

Source: Centers for Medicare and Medicaid Services (CMS) Hospital Compare

Data Period*: 2012-2013



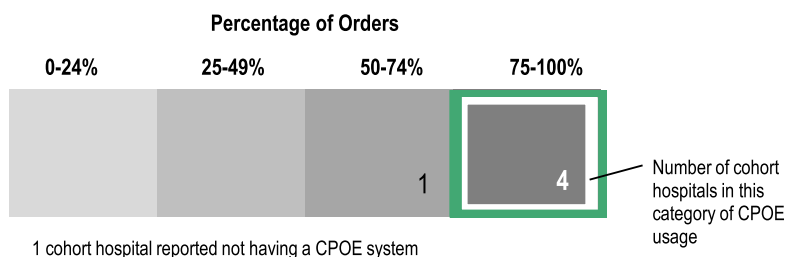
For descriptions of the metrics, please see Technical Appendix.

2013 Hospital Profile: **BRIGHAM AND WOMEN'S HOSPITAL**

Cohort: Academic Medical Center

■ Hospital ■ Peer Cohort ■ National Average
CARE PRACTICES

What percentage of **medication orders** were entered by a physician using an electronic system that included error checking? How does this hospital compare to the median hospital in its peer cohort?



Computerized Physician Order Entry (CPOE) is believed to increase efficiency and reduce transcription errors.

Population: 6 of 6 cohort hospitals responded to this survey

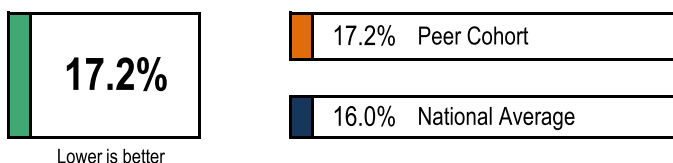
Score: Higher is better

Source: The Leapfrog Group Hospital Survey[^]

Data Period*: 2012-2013

READMISSIONS

What percentage of Medicare patients who were discharged from this hospital were **readmitted to any hospital within 30 days**? How does this compare to the median hospital in its peer cohort, and the national average?



Hospital-Wide All-Cause 30-Day Readmissions follows patients for 30 days from discharge and determines if they are readmitted to any hospital for any unplanned reason.

Population: Medicare Fee For Service (FFS) patients age 65+

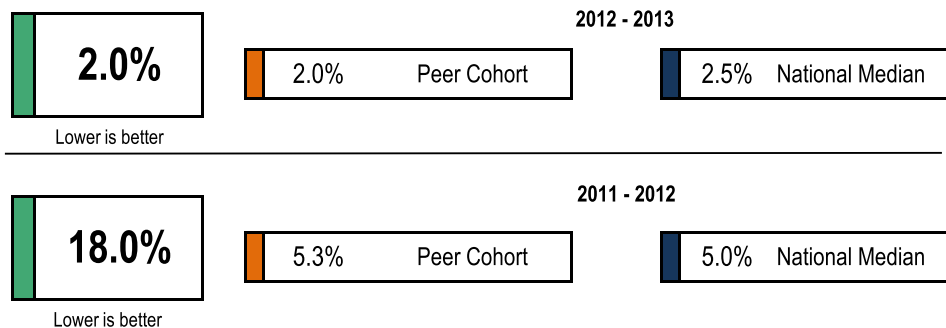
Score: Lower is better

Source: CMS Hospital Compare

Data Period*: 2011-2012

OBSTETRIC CARE

What percentage of all newborn deliveries at this hospital were **clinically unnecessary inductions before the recommended 39 weeks of gestation**? How does this compare to the median hospital in its peer cohort, and the national median?



Clinically Unnecessary Elective Deliveries before 39 weeks of gestation are associated with higher risks for newborns.

Population: Non-clinically complicated births. 41 hospitals reported data for this measure.

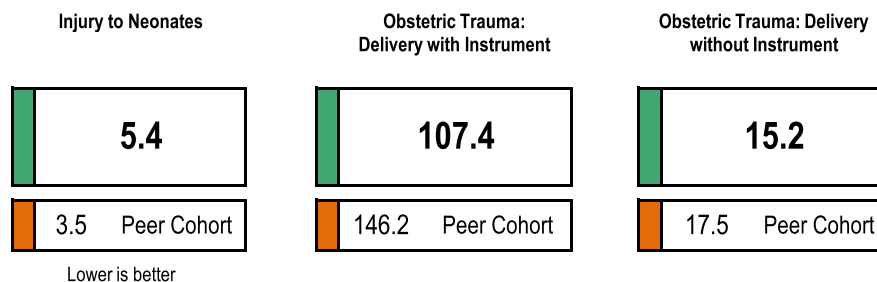
Score: Lower is better

Source: The Leapfrog Group Hospital Survey[^]

Data Period*: 2011-2012 and 2012-2013

OBSTETRIC CARE COMPLICATIONS

Out of every 1,000 births, how many patients experienced an adverse event? How does this compare to the median hospital in its peer cohort?



Complications and adverse events during birth can harm both the mother and infant.

Population: 42 hospitals are included in this analysis

Score: Lower is better

Source: HDD; CHIA-calculated indicator, not risk adjusted

Data Period*: 2012-2013

For descriptions of the metrics, please see Technical Appendix.

* Data Periods vary by measure based on data source. Please see Technical Appendix for measure-specific reporting periods.

[^] Measures from The Leapfrog Survey are voluntarily reported by hospitals. Not all hospitals report this data.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

<http://chiamass.gov/hospital-profiles>



2013 Hospital Profile:

MASSACHUSETTS GENERAL HOSPITAL

Boston, MA
Partners HealthCare System
Academic Medical Center
Metro Boston

Massachusetts General Hospital (MGH) is a non-profit academic medical center (AMC) located in the Metro Boston region. MGH is the largest hospital in Massachusetts, with 1,021 staffed beds; it is also the oldest hospital in Massachusetts. It is a teaching hospital of Harvard Medical School, and a member of Partners HealthCare System. MGH is one of eight organ transplant centers in Massachusetts. MGH earned a profit each year from FY09 to FY13, with a 4.6% total margin in FY13, consistent with the median financial performance of its peer cohort.

AT A GLANCE

TOTAL STAFFED BEDS: 1,021, largest acute hospital

% OCCUPANCY: 82%, < cohort avg. (85%)

CASE MIX INDEX in FY13: 1.43, > cohort avg. (1.32); > statewide (0.89)

INPATIENT DISCHARGES in FY13: 52,186

TRAUMA CENTER DESIGNATION: Adult: Level 1, Pedi: Level 1

EMERGENCY DEPT VISITS in FY13: 100,519

PUBLIC PAYER MIX: 56% (Non-DSH* Hospital)

SPECIAL PUBLIC FUNDING: Not Applicable

CY13 COMMERCIAL PAYER PRICE LEVEL: 94th Percentile

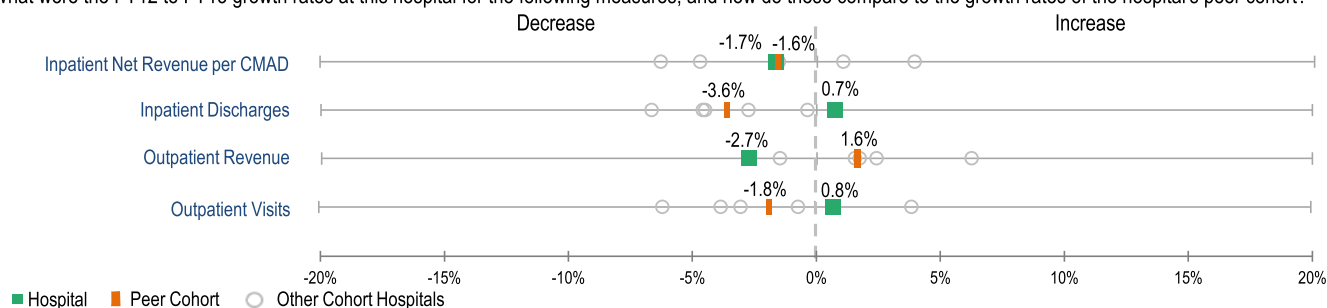
ADJUSTED[‡] COST PER DISCHARGE: \$13,542

INPATIENT:OUTPATIENT REVENUE in FY13: 51%:49%

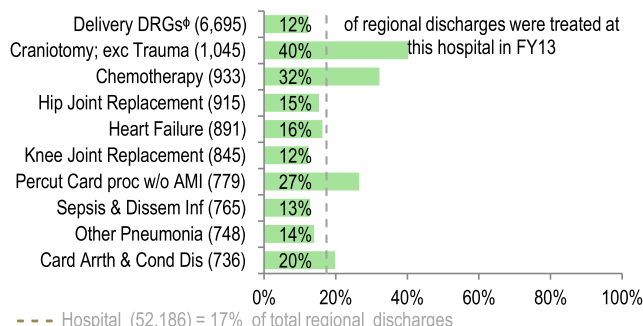
CHANGE IN OWNERSHIP (FY09-FY13): Not Applicable

GROWTH MEASURES

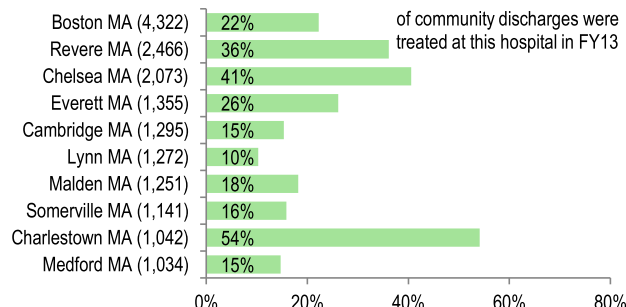
What were the FY12 to FY13 growth rates at this hospital for the following measures, and how do these compare to the growth rates of the hospital's peer cohort?

**SERVICES**

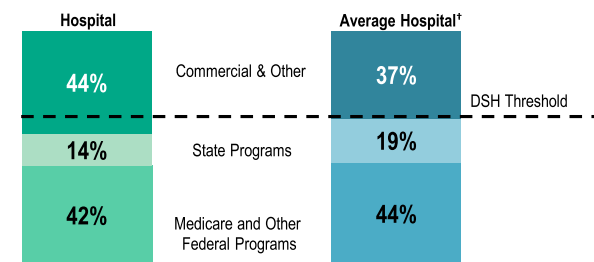
What were the most common inpatient cases (DRGs) treated at the hospital?
What proportion of the region's cases did this hospital treat for each service?

Discharges by DRG

Where did most of the hospital's inpatients reside? What proportion of each community's total discharges were attributed to this hospital?

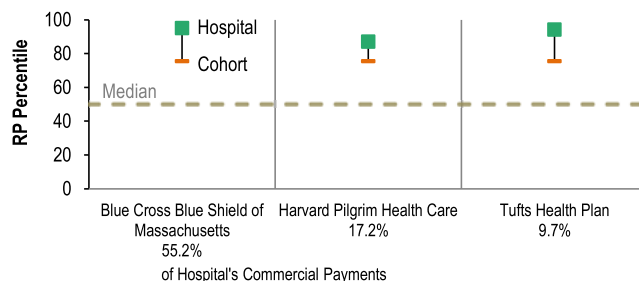
Discharges by Community**PAYER MIX**

What was the hospital's overall payer mix (gross charges) in FY13, and how does this hospital compare to the average acute hospital's payer mix?



Percentage calculations may not sum to 100% due to rounding

What were the hospital's CY13 payer-specific relative price levels for its top three commercial payers? How does this hospital compare to the average hospital in its peer cohort?



For descriptions of the metrics, please see Technical Appendix.